

SCHOOL LIFE

OFFICIAL JOURNAL OF THE ★ ★ ★ ★ ★ ★ ★ ★
OFFICE OF EDUCATION

National Defense Education Act A Full Report

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October-
November 1958

PERSPECTIVE

THESE days, as we prepare to administer the National Defense Education Act, we are often tempted to consider it only title by title. But to succumb to that temptation is to lose perspective in minutiae.

We will do the Act justice only if we see it as a mighty complex, in which each part reenforces the other, and all parts join to strengthen education across the board.

We can see the Act as a juncture of forces bearing down on such problems as the omissions in our courses of study and the shortage of teachers. We can see it as a reaffirmation of our traditional faith that hard work and ability will have their reward.

We can see it as a source of technicians in an age of automation; as a source of ambassadors in an age of world responsibility; as a way of making the average citizen at home in an age of science. We can see it as a boon to our colleges a decade hence.

And all the while we can see it as an occasion for reaching, in education, a new high level of shared responsibility and creative cooperation—among public and private agencies, individuals, and institutions, wherever and whatever they may be. If we see it thus, each step we take will move us surely onward toward our goal: Defense of our Nation against every enemy of body, mind, or spirit that time may bring.

Lawrence G. Derthick

U. S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE . . . ARTHUR S. FLEMMING, *Secretary*
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*P*artnership Continued



THE NATIONAL DEFENSE EDUCATION ACT OF 1958 will bring to our educational system new resources and encouragement at a time when they are critically needed.

It continues a historic partnership which has demonstrated its value to the American people over many years in the past—a partnership in which the Federal Government assists States, communities, and private institutions to pioneer in new educational programs and to strengthen others that have proved their worth.

This legislation will, I believe, help to bring about a significant increase in State, local, and private support for the education of our young people. It offers a splendid opportunity for teachers, school administrators, and public officials to enlarge their services to our free society.

Arthur A. Fleming

The ACT As a Whole

THE NATIONAL DEFENSE EDUCATION ACT OF 1958, passed by the Senate on August 22 and by the House the next day,* and signed into Public Law 85-864 by President Eisenhower on September 2, authorizes something over \$1 billion in Federal aid. In the swinging sweep of its 10 titles it touches—and returns to touch again—every level of education, public and private, from the elementary school through the graduate.

A single purpose

Its billion dollars, though authorized for a dozen separate programs, have been authorized for a single purpose—that every young person, from the day he first enters school, should have an opportunity to develop his gifts to the fullest. This is the emphasis that gives the Act its name, for it recognizes that in a free society the individual is the first line of defense.

In this pursuit of excellence for the individual, the Act

does not concern itself with how much bigger our schools should be, or how they should be built, important though these matters are, but rather with the finding and encouraging of talent, with the improving of the ways and means of teaching, with the furthering of knowledge itself.

To assure the efficient use of Federal funds thus to improve the quality of education, the Act calls for responsible action at every level:

***To agencies of the Federal Government it says: Administer this bill, select well-balanced, representative com-**

*In the Senate the vote was 66 to 15; in the House, 212 to 85. P. L. 85-864 is a compromise incorporating features of several bills, chiefly the Administration bill (S. 3163) and the Hill-Elliott bill (S. 3187 and H. R. 10279). For instance, its loan program is from the Hill-Elliott bill, though larger; and its provisions for language centers and institutes and for improving statistical services are from the Administration bill. In not including scholarships, it differs from both bills.

mittees to advise you; gather the facts, encourage research. But always remember that the States and local communities have primary responsibility for education and must retain full control over it. Therefore, do not construe any part of this Act to authorize you or any of your employees to exercise any direction over the curriculum, program of instruction, administration, or personnel of any educational institution or school system.

*To State departments of education it says: With the objectives of the Act in mind, measure your needs, improve your standards, give leadership and supervision to the administrators, counsellors, and teachers in the local schools.

*To teachers and counsellors it says: Increase your knowledge; learn to use the tools that will make your work more effective.

*To colleges and universities it says: You are the teachers of teachers. Marshal your forces to give them the knowledge and training they need to teach others.

*To students it says: Know yourselves. Discover your talents and make them grow; have confidence in yourselves and in the future.

*To all of them, by implication, it says: Plan together, work together, to meet each other's needs.

A complex of administration

The Act has 10 titles: The first one sets forth general provisions; the others outline, and authorize funds for, the various programs of Federal aid. Except for Title IX, which establishes a special service in the National Science Foundation, the Act will be administered, at the Federal level, by the Office of Education. (The discussion that follows does not include Title IX, except on pages

25-26, which are devoted specifically to it.)

So far, of the \$183 million authorized by the Act for the fiscal year ending June 30, 1959, the Congress has appropriated \$40 million to get things started (authorizations are merely permission to appropriate; it takes appropriations to make money available). A supplemental appropriation is expected later this fiscal year, sometime after the 86th Congress has convened, in January.

PARADOXICAL though it may seem, society as a whole must come to the aid of the individual—finding ways to identify him as a unique person, and to place him alongside his fellow men in ways which will not inhibit or destroy his individuality. By its educational system, its public and private institutional practices, and perhaps most importantly, by its attitude toward the creative person, a free society can actively insure its own constant invigoration.

—The "Rockefeller Report"
on Education

About three-fourths of the appropriated funds will be distributed as grants to the State educational agencies for strengthening instruction in elementary and secondary schools (Title III), testing and counseling (Title V), providing area vocational education (Title VIII), and improving statistical services (Title X). The rest will go to institutions of higher education for loans to students (Title II), fellowships (Title IV), institutes to train counselors (Title V), and foreign language centers and insti-

tutes (Title VI); and to agencies, organizations, and individuals for research in educational utilization of television, radio, motion pictures, and related media of communication (Title VII).

Prerequisites

Before the funds can be put into the hands of the users, however, there are a number of prerequisites to meet, not only for the Office of Education but for the recipient States and institutions as well.

For the Office, the prerequisite is principally the drawing up of regulations to take care of the many details of administration not specified in the Act but necessary to assure consistency and impartiality. On this matter, work is already in progress. Even at this writing, in mid-September, the U. S. Commissioner of Education is meeting with the chief State school officers and with college and university officials to present preliminary regulations and to test them against the many complicating conditions that may require revisions and modifications within the meaning of the law. Whether the final regulations can be completed with dispatch depends on the extent of these complications and the amount of study and compromise required to resolve them. The Office must also make some changes in its organization to cope with its new administrative duties; and before any money can be spent on research under Title VII, the Commissioner will have to appoint an advisory committee. Other determinations, too, must be made, but some are a matter for the regulations to decide.

The States, on the other hand, must have authorization from their legislatures to receive Federal funds before they can initiate a program for using such funds. A review of the State laws shows that 29 States al-

ready have the legislative authority to receive and administer Federal grants-in-aid; but the other 19 apparently will have to wait until such authority is forthcoming. For the States, conditions are further complicated by the fact that they must match the Federal funds dollar for dollar (though not in the first year for some of the programs); and this requirement they will be unable to meet until they have an appropriation from their State legislatures. Fortunately, all but three of the legislatures will convene in regular session this coming January.

Moreover, any State, before it can receive payments under a particular title, must submit to the U. S. Commissioner of Education its plan for using the Federal funds. There is no provision in the Act for a preliminary plan, or a piece of a plan, or even a 1-year plan; apparently a full-fledged 4-year plan is wanted from the very beginning. This is not to say, however, that a State is irrevocably bound to its first outline: it may make revisions as time passes and circumstances change.

Institutions of higher education, too, have prerequisites to meet: Setting up and contributing at least one-tenth of the loan fund, for instance, if they wish to participate under Title II; or establishing or expanding their graduate programs if they are to participate under Title IV.

For some titles, all of the administrative machinery may be running and the program under way by the end of this semester; for others, things may move slowly. But even the latest is expected to be making contributions to better education by the end of this fiscal year.

Now begins a detailed account of the provisions of the Act, title by title. Pages 28 through 34 of this issue have been reserved for the latest developments at the time this issue went to press.

Federal funds authorized by the National Defense Education Act, Public Law 85-864

	1958-59	1959-60 (thousands of dollars)	1960-61	1961-62
Title II. LOANS TO STUDENTS¹	\$47,500	\$75,000	\$82,500	\$90,000
Title III. FINANCIAL AID FOR STRENGTHENING INSTRUCTION:				
Equipment and remodeling.....	70,000	70,000	70,000	70,000
State supervision.....	5,000	5,000	5,000	5,000
Title IV. FELLOWSHIPS.....	(²)	(²)	(²)	(²)
Title V. GUIDANCE, COUNSELING, TESTING:				
State programs.....	15,000	15,000	15,000	15,000
Institutes.....	6,250	7,250	7,250	7,250
Title VI. LANGUAGE DEVELOPMENT:				
Centers.....	8,000	8,000	8,000	8,000
Institutes.....	7,250	7,250	7,250	7,250
Title VII. RESEARCH IN USES OF TV, RADIO, MOVIES, ETC.....	3,000	5,000	5,000	5,000
Title VIII. AREA VOCATIONAL EDUCATION.....	15,000	15,000	15,000	15,000
Title IX. SCIENCE INFORMATION SERVICE.....	(²)	(²)	(²)	(²)
Title X. (SEC. 1009). IMPROVING STATISTICAL SERVICES.....	(²)	(²)	(²)	(²)

¹ In addition to the amounts given here, the Act authorizes (1) "such sums as may be necessary" for the 4 years following 1961-62 to permit every student under the program to continue or complete his education, and (2) up to a total of \$25 million for the entire period for loans to the institutions to help them finance their share of the loan funds.

² "Such sums as may be necessary." For Title IV, however, maximum totals can be estimated (see p. 14).

³ "Such sums as the Congress may determine." No State may receive more than \$50,000 a year.



GENERAL PROVISIONS

IN ADDITION to stating the purpose of the Act and prohibiting Federal control, Title I defines the meaning of certain words recurring frequently in the Titles of the law—words whose exact meaning is essential to an understanding of the intent of the Congress:

Secretary

The Secretary of Health, Education, and Welfare.

Commissioner

The United States Commissioner of Education.

State

A State, Alaska, Hawaii, Puerto Rico, the District of Columbia, the Canal Zone, Guam, or the Virgin Islands. For Titles III and V, however, for the purpose of allotments, a distinction is made between Alaska, Hawaii, Puerto Rico, Canal Zone, Guam, the

Virgin Islands, and the "States."

Institution of higher education

An educational institution that (1) admits as regular students only persons having certificates, or recognized equivalents, of graduation from secondary schools; (2) is legally authorized to provide programs of higher education; (3) provides a program for which it awards a bachelor's degree, or a 2-year program creditable toward a bachelor's degree; (4) is a public or other non-profit institution; and (5) is accredited by a nationally recognized accredited agency* or has its credits accepted on transfer by not less than 3 accredited institutions. As used in Title II, the term includes a private business school or technical institution which meets also the 5 qualifications given above.

State educational agency

The State board of education or other agency or officer primarily responsible for State supervision of public elementary and secondary schools or an officer named by the State governor in the absence of such an agency.

School-age population

That part of the population between the ages of 5 and 17 inclusive, determined by the Commissioner from the most recent Department of Commerce data.

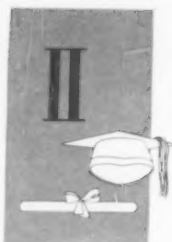
Elementary school

A school providing elementary education as determined by State law.

Secondary school

A school providing secondary education as determined by State law, excluding education beyond grade 12, except in Title III, where the term may include a public junior college, as determined by State law.

*As required by the Act, the Commissioner will publish a list of the agencies and associations he determines to be reliable authority.



LOANS TO STUDENTS

TITLE II. Loans to students in institutions of higher education.

FUNDS FOR FISCAL YEAR 1958-59—

AUTHORIZED: \$47½ million, plus this year's share of the \$25 million appropriated for loans to institutions over the years to help them finance their share of the loan funds.

INITIAL APPROPRIATION: \$6 million, specified by Congress.

The WHY of the TITLE

COLLEGE costs are at the highest point in history. For the average student in a publicly controlled institution the annual bill is \$1,500; for his counterpart in a private institution it is \$2,000.

Even if they work full time in the summers and part time during the school year, many college students cannot meet that kind of expense singlehanded. If their families can't help them, or their colleges, or someone else, they will have no choice but to drop out of college.

This is the choice thousands of young people are having to make every year. Some don't even make an attempt in the first place: figures show that only half of the top quarter of each year's high school graduating class enter college. Of those who enter, only about half stay on to graduate. There is little doubt that financial need is one of the biggest factors in the dropout.

The TITLE itself

TITLE II provides for substantial financial assistance to worthy and needy students. This assistance is in the form of loans that bear no interest until repayment begins, and borrower need not begin repayment until he has been out of school for a year. A student can get as much as \$1,000 a year for 5 years if he fulfills the conditions of the Act.

In order to provide these loans the Congress of the United States has authorized the appropriation of the following sums of money:

Fiscal Year 1959	\$47½ million
Fiscal Year 1960	\$75 million
Fiscal Year 1961	\$82½ million
Fiscal Year 1962	\$90 million

For the subsequent 4 fiscal years running through the end of June 1966, additional funds may be appropriated to enable students who had received loans prior to June 30, 1962, to complete their study. For example, if a

student received a loan of \$1,000 or less in fiscal year 1962, he could receive additional loans for the next 4 years if he needed them and if he fulfilled the conditions of the Act.

The total amount of money authorized to be appropriated in the period before the end of fiscal year 1962 is \$295 million. Assuming maximum use, this is enough to provide 1,000-dollar loans to 295,000 students, or to nearly 1 out of 10 in the entire opening fall enrollment in all institutions of higher education last year. Or it is enough to make 4,000-dollar loans over a 4-year period to 73,500 students—nearly as many as were enrolled for the first time last fall in all the institutions of higher education in the States of New York, New Jersey, and Maryland.

Enrollments Decide

Funds will be apportioned among the States according to their college enrollments: A State will receive money in the same ratio to the total allotment as the full-time enrollment in its higher educational institutions bears to the full-time enrollments in all the States. For example, in fiscal year 1960 State X has 100,000 full-time students, and all States together have 4 million. Thus, State X has $\frac{1}{40}$ th of the full-time students and is entitled to $\frac{1}{40}$ th of the allotment; in terms of the \$75 million authorized for that year, State X would be entitled to \$1.8 million.

The law also places a limitation on the amount an individual institution may receive. Regardless of the size of the college or university, it cannot receive more than \$250,000 in any one fiscal year for student loan purposes.

Federal contributions for loan purposes, called capital contributions, will not be made automatically to institutions of higher education. There are requirements to be met:

1. The institution must establish a student-loan fund.
2. The Federal capital contribution (an amount up to \$250,000) must be deposited in this fund. In addition, the institution must contribute to the fund—no less than one-ninth of the Federal contribution—and it must place in it all principal and interest payments on loans, as well as any other earnings of the fund.
3. The institution must provide for the proper, authorized use of the loan fund.
4. The institution, in making loans to students, must give special consideration to (a) students with superior academic background who intend to teach in elementary or secondary schools; and (b) students whose academic background indicates superior capacity or preparation in science, mathematics, engineering, or a modern foreign language.
5. Finally, provisions must be made to protect the financial interest of the United States, and to promote the purpose of the program.

These are the general provisions of the title as they apply to the institutions of higher education.

Answers for the Student

The student, or potential student, seeking a loan will need to know other things about the provision of Title II. Some of his questions will have to wait for the regulations, but for many of his questions the answers are implicit in the Act:

Q. Who can get a loan?

A. Anyone is eligible if he can show a need for financial help, is capable of "maintaining good standing" in his college work, and has been admitted by an institution of higher education as a full-time student.

Q. Will loans be granted only to undergraduates?

A. No. Graduate students are eligible if they are attending, or will attend, colleges or universities as full-time students.

Q. Suppose one meets all these qualifications, does that mean that he will automatically qualify for a loan?

A. No. The institution *selects* those to whom it will give loans; and it is obliged to give "special consideration" to (1) students with superior academic background who plan to become elementary or secondary school teachers and (2) students whose academic background indicates a superior capacity for or preparation in science, mathematics, engineering, or a modern foreign language. Within these limits, the loan fund is to be "reasonably available" to all students who meet the eligibility requirements of the Title.

Q. Why are students in the two groups favored?

A. Because manpower shortages are most acute at present in teaching and the four fields of science, mathematics, engineering, and modern foreign languages.

Q. What should the student do first, if he wishes to get a loan?

A. He should find out whether the college or university of his choice is establishing a loan fund with Federal assistance (he can inquire of the institution or he can consult the list which will be published soon by the Office of Education). If it is, he should make his application to the institution. The student should remember, however, that since the amount any one institution may receive is limited, the funds may be quickly exhausted, at least in the larger institutions.

Q. Exactly how much can a student borrow?

A. A student can borrow as much as \$5,000, but not more than \$1,000 in any fiscal year. Most loans, however, will probably be for lesser amounts, and there probably will not be many students requiring loans for 5-year periods.

Q. Does the borrower need security or an endorser on his note?

A. Not unless he is a minor and his note would not, under the law, create a binding obligation.

Q. How are the loans to be paid back?

A. The student's note will call for repayment in 10 equal annual installments, beginning 1 year after the date on which he stops being a full-time student. But, if the borrower wishes, he may repay in graduated periodic installments.

Q. How much interest?

A. Interest rate is 3 percent a year starting with the first payment. The money is loaned *without interest* during the years of study and for 1 year thereafter.

Q. Suppose a student finds himself in a position to pay off faster, can he do so?

A. Yes. The loan may be repaid in whole, or in part, at any time within the specified limit. Interest payments will be reduced accordingly.

Q. On the other hand, what if the borrower runs into financial trouble and cannot meet the 10-year limit? What can be done?

A. The 10-year period may be extended in accordance with the policy of the Commissioner.

Q. What happens if the borrower dies or is disabled before he has paid his debt?

A. In either case the liability to repay is canceled.

Q. What happens when a borrower goes into the Armed Forces of the United States?

A. During his period of service, if it does not exceed 3 years, interest will not accrue on the loan and the time will not count against the 10 years given for repayment. But after 3 years of service, interest will begin to accrue and the time will count.

Q. Suppose an individual who has borrowed the maximum wants to return for more study. Will terms of repayment be temporarily relaxed for him?

A. Yes. While he is a full-time student in good standing, no interest is charged and no payments fall due; nor does the time use up any of the 10 years he has for repaying.

Q. Is it true that the borrower need not repay all of the loan if he becomes a teacher?

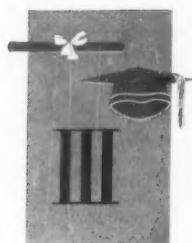
A. Yes, if he becomes a full-time teacher in a public elementary or secondary school, up to half of the loan (plus the interest on that half) will be forgiven—at the rate of 10 percent a year. That is, 5 years of teaching can repay half of the loan. The amount forgiven each year is based on the amount still unpaid on the first day of each full year of teaching.

Q. Will the amount of the loan be paid to the student in a lump sum at the beginning of the school year?

A. No, he will get it in installments throughout the year (the Commissioner's regulations will specify *when*); and the installments will keep coming as long as the student maintains a satisfactory standing.

Allotments to the States under Title II, fiscal year 1958-59, under (1) total authorization and (2) initial appropriation

STATE	Authoriza- tion	Appro- priation	STATE	Authoriza- tion	Appro- priation
Alabama.....	\$701,618	\$88,625	New Jersey....	\$850,627	\$107,448
Arizona.....	314,333	39,705	New Mexico....	197,817	24,987
Arkansas.....	376,461	47,553	New York.....	4,935,583	623,442
California.....	4,525,953	571,699	North Carolina..	1,094,213	138,216
Colorado.....	642,167	81,116	North Dakota...	199,887	25,249
Connecticut....	658,751	83,211	Ohio.....	2,167,297	273,764
Delaware.....	92,281	11,657	Oklahoma.....	871,599	110,097
District of Columbia.....	564,265	71,276	Oregon.....	581,029	73,393
Florida.....	842,774	106,456	Pennsylvania...	2,804,019	354,192
Georgia.....	778,125	98,290	Rhode Island...	251,394	31,755
Idaho.....	180,580	22,810	South Carolina..	520,025	65,687
Illinois.....	2,420,267	305,718	South Dakota...	216,718	27,375
Indiana.....	1,380,328	174,357	Tennessee.....	872,634	110,227
Iowa.....	902,270	113,971	Texas.....	2,728,794	344,690
Kansas.....	771,937	97,508	Utah.....	478,644	60,460
Kentucky.....	613,319	77,472	Vermont.....	158,460	20,016
Louisiana.....	832,243	105,125	Virginia.....	764,939	96,624
Maine.....	180,962	22,858	Washington....	835,776	105,572
Maryland.....	645,407	81,525	West Virginia...	418,045	52,806
Massachusetts..	1,976,636	249,680	Wisconsin.....	1,072,409	135,462
Michigan.....	2,023,643	255,618	Wyoming.....	76,215	9,627
Minnesota.....	1,069,933	135,149	Outlying parts of the U. S.:		
Mississippi.....	520,273	65,719	Alaska.....	10,666	1,347
Missouri.....	1,124,704	142,068	Canal Zone....	3,420	432
Montana.....	186,431	23,549	Guam.....	1,350	171
Nebraska.....	453,329	57,263	Hawaii.....	114,514	14,465
Nevada.....	34,541	4,363	Puerto Rico....	265,211	33,500
New Hamp- shire.....	195,184	24,655	Virgin Islands..		
			TOTAL	47,500,000	6,000,000



STRONGER INSTRUCTION

TITLE III. Financial assistance for strengthening science, mathematics, and modern language instruction.

FEDERAL FUNDS FOR FISCAL YEAR 1958-59—

AUTHORIZED: For equipment and remodeling, \$70 million; for State supervision, \$5 million.

INITIAL APPROPRIATION: For equipment and remodeling, \$19 million; for State supervision, \$1.35 million.

The WHY of the TITLE

WITNESS after witness appearing before the House and Senate committees on education during the past session of Congress has emphasized our need to strengthen instruction in the elementary and secondary grades in science, mathematics, and modern foreign languages.

Over and over, the committees have heard these three subjects named at the top of the "critical" list—first, because persons competent in them are desperately needed in a world that is both contracting and expanding at the same time; second, because our schools have lagged in preparing persons for such a world. And when all has been said, evidence is overwhelming to support the contention that the schools have lagged in at least 3 ways: By neglect of science, mathematics, and foreign languages in the curriculum; by an inferior quality of instruction; and by an inadequate budget for such things as laboratory equipment and audio-visual materials.

Neglect in the Curriculum

A number of studies have turned up dismal evidence of neglect in the curriculum:

- ★Only 1 out of 3 high school students ever takes chemistry; only 1 out of 4 takes physics
- ★Only 1 out of 3 takes intermediate algebra; 1 out of 8, trigonometry or solid geometry
- ★Only 1 out of 7 takes a modern foreign language—

All these are the results of other equally dismal facts: That every year about 100,000 seniors are attending public high schools which offer no advanced mathematics of any kind; that 61,000 are in high schools offering neither chemistry nor physics; that more than half of all the public high schools in the United States offer not a single modern foreign language.

Perhaps even more discouraging is the evidence that in many high schools offering all these subjects, many students do not elect to take them, either because they have not discovered their capabilities along those lines or because they have seen few signs of enthusiasm in the students that *do* take them.

Inadequate teaching

When all is said and done, each of these circumstances—schools without courses, courses without students—come down to this: Not enough live, stimulating teaching. It comes down to guidance, too—but that is another matter, which the Act looks to in another title (see p. 15).

THE proper, resourceful teaching of science is expensive, compared to other fields of education. But efforts to teach science without adequate laboratory and demonstration equipment deprive students of experiences with the very heart and soul of the scientific endeavor.

In other words, to teach science without proper equipment is practically useless.

*Glenn O. Blough,
Testimony before Senate Committee.*

Now, stimulating teaching is the work of a strong teacher. Yet, in the three subjects under consideration here, the shortage of qualified, skillful teachers is greater than in most other subjects. One of our most favored States, for example, has found that nearly one-third of its high school mathematics teachers have not even a minor in

mathematics. And this is no exception: similar proportions obtain in many other States, in both mathematics and the sciences. As for the 15,000 high school teachers of foreign languages, far too many of them, too, are inadequately trained, either in teaching methods or in the language itself, or in both.

Much of the "unqualifiedness" of many teachers could be overcome under professional supervision, both from the State department of education and from the local school system; but only a fortunate few teachers have such help coming now. Only 8 States have full-time consultants in science; only 3, in mathematics; only 3, in foreign languages. Only 6 percent of the schools have the services of special county or city supervisors for science; only 5, for mathematics.

Inadequate equipment

Even the best of teachers, however, is hampered by lack of tools. The science teacher without a laboratory has nothing beside his own ingenuity—and in this highly technical age that is not enough—to make his subject come alive. Without concrete models the trigonometry teacher has little more than words for showing his students that the sum of the angles of a spherical triangle is truly more than 180 degrees.

And foreign language teachers, working to supply a demand for people who can talk and listen competently in a foreign language, need, as they have never needed before, auditory aids to train students' ears and be a model for their tongues. They need visual aids, too: slides and film strips, pictures, maps, foreign newspapers and magazines, all the things they call "realia." In the last few years the language laboratory has come upon the scene; and those who have seen what can be done with it, know that it is just as important as the long-accepted scientific lab. Although language laboratories in the colleges are well established, fewer than 100 high schools in the country have any of the electronic equipment needed for practice in hearing and speaking a modern foreign language.

But all these things cost much money; and lack of money, unquestionably, is what keeps the schools from having them.

An average general science lab for 28 students costs about \$8,000, including furniture, apparatus, and instruments; a physics lab, about \$10,000; a chemistry lab, about \$13,000. A language lab containing 20 individually equipped booths, with the tape-recording and playback instruments and other necessary facilities, costs between \$8,000 and \$15,000; even the relatively slight expense of one recorder-playback equipped with several sets of headphones wired in series is prohibitive for many schools.

Allotments to the States under Title III for grants to State educational agencies, fiscal year 1958-59, under (1) the total authorization and (2) the initial appropriation

STATE	Equipment and Remodeling		Administration	
	Authori- zation	Appro- priation	Authori- zation	Appro- priation
Alabama . . .	\$1,783,704	484,148	106,615	21,927
Arizona . . .	530,890	144,099	34,995	20,000
Arkansas . . .	982,081	266,565	58,701	20,000
California . . .	3,036,487	824,189	362,993	74,656
Colorado . . .	622,016	168,833	47,538	20,000
Connecticut . .	494,188	134,137	59,077	20,000
Delaware . . .	95,470	25,913	20,000	20,000
D. of C. . . .	141,646	38,447	20,000	20,000
Florida	1,367,956	371,302	105,110	21,618
Georgia	2,069,074	561,606	123,674	25,436
Idaho	335,890	91,170	20,696	20,000
Illinois	2,172,979	589,809	254,747	52,393
Indiana	1,604,380	435,475	129,443	26,622
Iowa	1,121,523	304,414	79,648	20,000
Kansas	793,313	215,328	59,454	20,000
Kentucky . . .	1,651,501	448,264	98,713	20,302
Louisiana . . .	1,668,278	452,818	99,717	20,508
Maine	406,147	110,240	27,344	20,000
Maryland . . .	930,931	252,681	81,655	20,000
Massachu- setts	1,204,497	326,935	126,308	25,977
Michigan . . .	2,476,417	672,170	223,767	46,022
Minnesota . . .	1,349,480	366,287	97,083	20,000
Mississippi . .	1,265,373	343,458	75,634	20,000
Missouri . . .	1,371,230	372,191	113,765	23,398
Montana . . .	276,084	74,937	20,194	20,000
Nebraska . . .	560,132	152,036	40,138	20,000
Nevada	58,767	15,951	20,000	20,000
New Hamp- shire	206,457	56,038	20,000	20,000
New Jersey . .	1,209,753	328,362	144,620	29,744
New Mexi- co	482,636	131,001	28,849	20,000
New York . . .	3,427,840	930,413	409,778	84,279
N. Carolina . .	2,459,388	667,548	147,004	30,234
N. Dakota . . .	344,137	93,409	20,570	20,000
Ohio	2,740,446	743,835	257,005	52,858
Oklahoma . . .	1,055,296	286,437	67,857	20,000
Oregon	627,650	170,362	50,172	20,000
Pennsylva- nia	3,462,401	939,795	299,024	61,500
Rhode Is- land	228,869	62,122	21,825	20,000
S. Carolina . .	1,399,685	379,915	83,662	20,000
S. Dakota . . .	354,651	96,262	21,198	20,000
Tennessee . . .	1,823,554	494,965	108,998	22,417
Texas	4,094,710	1,111,421	278,203	57,217
Utah	455,471	123,628	28,096	20,000
Vermont	170,762	46,350	20,000	20,000
Virginia	1,718,169	466,360	112,887	23,217
Washington . .	888,940	241,284	77,139	20,000
W. Virginia . .	1,101,693	299,031	65,851	20,000
Wisconsin . . .	1,447,058	392,773	110,253	22,675
Wyoming . . .	130,000	35,286	20,000	20,000
TOTAL	61,600,000	16,720,000	5,000,000	1,350,000

NOTE: Allotments to Alaska, Canal Zone, etc., to be determined by the Commissioner of Education, under sec. 1008 of the Act.

The TITLE itself

ON this combined need for equipment and supervision, Title III fits like a glove. For the former it authorizes a total of \$280 million; for the latter, a total of \$20 million. (Readers unfamiliar with other parts of the Act, or with earlier legislation for education, may wonder why, if inadequately trained staff is a major problem, Title III does not also provide for substantial teacher training. Actually, Title VI of the Act does exactly that—for language teachers. For teachers of science and mathematics the same has already been done in an earlier act, through a teacher-institute program administered by the National Science Foundation.)

EQUIPMENT AND REMODELING

The funds for equipment—\$70 million a year for 4 years, beginning in 1958-59—may be spent to acquire (1) equipment suitable for education in science, mathematics, or modern foreign languages in the elementary or secondary schools, or both, and (2) minor remodeling of laboratory or other space suitable for such equipment. "Minor remodeling" is not defined; but until the regulations make the term clear the Office is assuming that it does not include new wings on buildings but does include putting up partitions, knocking them down, and installing gas and electricity. On "equipment" the Title is more specific: it includes audiovisual materials and equipment, and printed materials other than textbooks.

For private schools, too

Some of the money is reserved for private schools—as loans. Each year 12 percent of the available funds will be set aside (12 percent because for the Nation as a whole that is the ratio of private school enrollment to public, in elementary and secondary schools) and each State will share in this amount on the basis of its private school enrollment. From each State's allotment, the Commissioner will lend directly to nonprofit private schools that apply to him. The loans will bear interest:

... at the rate arrived at by adding one-quarter of 1% per annum to the rate the Secretary of Treasury determines to be equal to the current average yield on all outstanding marketable obligations of the United States as of the last day of the month preceding the date the application for the loan is approved ...

and will be repayable at any time agreed on up to 10 years after they were made.

The States' share

All the rest is for the States, to be paid to the State educational agencies. Up to 2 percent will be reserved

each year for Alaska, Hawaii, Puerto Rico, the Canal Zone, Guam, and the Virgin Islands, to be allotted among them according to their respective needs. The remainder will be allotted to the States on the basis of a formula that takes into account (1) each State's school-age population and (2) its total personal income.*

For every Federal dollar a State receives for equipment and remodeling, it must spend another, either a State dollar or a local dollar. A State has 2 years to use the funds allotted to it in any fiscal year; and from time to time, during the period when an allotment is available, the Commissioner will pay the State in amounts equal to one-half of its own expenditures for equipment and remodeling.

STATE SUPERVISORY SERVICES

Title III also appropriates \$5 million a year for 4 years to be paid to State educational agencies for expanding or improving their "supervisory or related" services to public elementary and secondary schools—in science, mathematics, and modern foreign languages. These funds are to be used also for administering the plans which the States must submit to the Commissioner before they are eligible to receive funds for either equipment or supervision (see section on State plans).

The phrase "related services" is generally being construed, pending definition in the regulations, as meaning such things as the use of expert consultants, the preparing of guides for curriculum planning and assisting in such planning, travel by supervisors and advisory committees, and the holding of conferences of teachers under the leadership of professional consultants. The last-named, however, will not be institutes of the kind conceived of in Titles V and VI; they will be briefer sessions, lasting, say, a few days, or a week or two.

Distribution of funds

Just as he does with the "equipment money," the Commissioner will reserve up to 2 percent of each year's "supervision money" to be allotted among Alaska, Hawaii,

*State X's allotment bears the same ratio to the total available Federal funds as its school-age population multiplied by its "allotment ratio" bears to the Nation's school-age population multiplied by the Nation's "allotment ratio" (Nation here means "continental United States," from which term the Act excludes Alaska).

The "allotment ratio" for any State "shall be 100 percent less the product of (B) 50 percent and (B) the quotient obtained by dividing the income per child of school age for the State by the income per child of school age for the continental United States, except that the allotment ratio shall in no case be less than 33 1/3 percent or more than 66 2/3 percent."

The allotment ratios now in effect will carry through 1959-60. Another set will be promulgated between July 1 and Aug. 31, 1959, to be effective for 1960-61 and 1961-62.

Puerto Rico, the Canal Zone, Guam, and the Virgin Islands.

The rest he will distribute among the States and the District of Columbia on the basis of each State's school-age population. If, on that basis, any State's share turns out to be less than \$20,000, adjustments will be made to raise it to that amount.

No matching to start

For 1958-59, the first year of the program, the Federal Government will pay *all* of a State's expenditures for expanding or improving its supervisory services. That is, no matching is required for the first year.

For the next 3 years, however, the State's payments will have to match the Federal funds fifty-fifty. Whether the matching funds must consist only of State funds is a matter for the regulations to specify.

STATE PLANS

To receive Federal funds under Title III a State will have to submit a plan to the Commissioner, through its State educational agency. The plan must do these things to be approvable:

1. Set forth a program under which the equipment and remodeling funds will be used solely for projects that the State agency has approved as complying with the intent of the law.

2. Set forth principles for determining priority of the various projects.

3. Provide that any applicant for a project may have a hearing before the State educational agency.

4. Provide for establishing State standards for the equipment to be acquired.

5. Set forth a program under which the funds paid to the State for expanding or improving "supervisory or



Electronic devices are among the teaching aids now available for modern foreign languages

TULANE UNIVERSITY

related services" in science, mathematics, and modern foreign languages will be expended solely for those purposes—and for administering the State plan.

In addition, the plan must provide that the State educational agency will—

★Be the sole administrator.

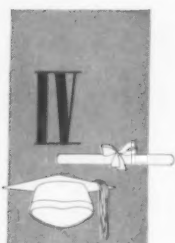
★Make such reports to the Commissioner "as may be reasonably necessary to enable him to perform his duties."

★Follow such fiscal and accounting procedures as will assure that Federal funds are properly disbursed and accounted for.

Local schools, of course, will be the ones to benefit from the State plans. With the funds they receive, they will be able not only to improve their physical facilities for teaching science, math, and modern foreign languages, but to employ supervisory assistance of their own, to supplement that which they will receive from their State educational agencies.

Allotments to the States under Title III for loans to nonprofit private schools, fiscal year 1958-59, under (1) the total authorization and (2) the initial appropriation

STATE	Authori- zation	Appropri- ation
Alabama.....	\$43,199	\$11,725
Arizona.....	37,694	10,231
Arkansas.....	16,322	4,430
California.....	459,163	124,630
Colorado.....	56,330	15,290
Connecticut.....	130,158	35,328
Delaware.....	26,561	7,209
District of Colum- bia.....	39,990	10,855
Florida.....	78,088	21,195
Georgia.....	27,455	7,452
Idaho.....	10,484	2,846
Illinois.....	773,423	209,930
Indiana.....	183,297	49,752
Iowa.....	131,174	35,604
Kansas.....	70,058	19,016
Kentucky.....	119,603	32,464
Louisiana.....	201,022	54,563
Maine.....	57,522	15,613
Maryland.....	178,476	48,443
Massachusetts...	386,896	105,015
Michigan.....	445,821	121,009
Minnesota.....	220,009	59,717
Mississippi.....	31,137	8,451
Missouri.....	221,131	60,021
Montana.....	28,051	7,614
Nebraska.....	71,005	19,273
Nevada.....	6,066	1,647
New Hampshire...	53,876	14,623
New Jersey.....	439,475	119,286
New Mexico.....	40,394	10,964
New York.....	1,259,253	341,798
North Carolina...	23,633	6,415
North Dakota...	27,578	7,485
Ohio.....	522,611	141,852
Oklahoma.....	27,964	7,590
Oregon.....	45,794	12,430
Pennsylvania.....	858,068	232,905
Rhode Island....	78,070	21,190
South Carolina...	14,324	3,888
South Dakota...	23,370	6,343
Tennessee.....	44,672	12,125
Texas.....	200,075	54,306
Utah.....	7,328	1,989
Vermont.....	27,806	7,547
Virginia.....	69,339	18,821
Washington.....	72,109	19,572
West Virginia...	23,668	6,424
Wisconsin.....	340,489	92,418
Wyoming.....	6,417	1,742
Outlying parts:		
Alaska.....	3,208	871
Canal Zone.....	789	214
Guam.....	3,910	1,061
Hawaii.....	46,881	12,725
Puerto Rico.....	84,697	22,989
Virgin Islands...	4,067	1,104
TOTAL.....	8,400,000	2,280,000



FELLOWSHIPS

TITLE IV. National Defense Fellowships.

FEDERAL FUNDS FOR FISCAL YEAR 1958-59—

AUTHORIZED: "Such sums as may be necessary"; at the maximum, this could mean something like \$5 million.

INITIAL APPROPRIATION: \$800,000, allotted by the Office of Education.

The WHY of the TITLE

TITLE IV looks to the providing of more college teachers. It does so on the very eve of a crisis: in the next few years the colleges will feel the first shock of the "tidal wave" of students which for 12 years has been advancing steadily through the elementary and secondary schools; and within a decade college enrollments will probably double.

The impact will find the colleges short of room, but worse still it will find them short of teachers. In the last few years, when the ranks of teachers with doctors degrees should have been swelling and swelling fast, they have actually been thinning. The number of people earning Ph. D.'s has been falling off from 8,903 in 1955-56 to 8,756 in 1956-57 and 8,380 (estimated) in 1957-58; and of each year's total only about half have gone into college teaching. In certain fields—science and engineering, for example—the proportion has been even less. In 1953-54 about one-third of the new college teachers were Ph. D.'s; last year, less than one-fourth. In recent years colleges have been adding about 3,000-4,000 new teachers with Ph. D.'s every year; but additions like these will be utterly inadequate for the future. Conservative estimates say that in the coming decade colleges must recruit between 15,000 and 22,000 teachers a year.

A double problem

One of the reasons for the shortage of college teachers is the fact that graduate programs are not widely available. Out of approximately 1,350 degree-granting institutions in the United States, only about 160 give doctoral degrees; and many of these have resources for only a few

graduate students. Graduate education is the costliest education there is. It calls for professors of high rank, for the directing of students on almost an individual basis, for extensive and expensive libraries and laboratories. It is therefore not surprising that only a few universities and colleges have been able to offer substantial graduate programs: in 1956-57, one-third of the new doctoral degrees granted in the entire country were granted by institutions in only 3 States.

On the other hand, some institutions have good graduate programs going begging for students. After all, graduate education is expensive to get, as well as expensive to give; and by the time a would-be college teacher is ready for graduate work he is likely to be too burdened by financial responsibilities to be able to spend two or three years as a full-time student. Money is what he needs, both to pay his costs and support his dependents while he studies.

The TITLE itself

TO the solution of this double problem—the uneven distribution of graduate programs and the economic needs of students—Title IV addresses itself. It takes two approaches: Providing students with funds; and increasing the number and scope of graduate programs of study.

How much for how many?

Unlike most of the other titles in the act, Title IV authorizes not specific totals but "such sums as may be necessary." They will be spent on as many as 5,500 fellowships, each for not more than three years of study after the baccalaureate degree. The fellowships will be awarded over a 4-year period: 1,000 have been authorized for the year beginning July 1, 1958; 1,500 for each of the next 3 years. Each fellow will receive a stipend of \$2,000 during the first year, \$2,200 during the second, and \$2,400 during the third—plus \$400 a year for each of his dependents. In addition, his college or university each year will receive an amount to offset the costs of making the program available to the fellow.

Assuming the maximum number of fellows (5,500); the maximum length of fellowships (3 years); and, for each fellow, the maximum annual payments to institutions (\$2,500) and an average of 2 dependents, we can arrive at a dollar value for Title IV, as shown in the tabulation on the next page.

As the tabulation indicates, the Congress has authorized funds for 2 years beyond 1961-62, the last year of awards. These funds will make it possible for the last 1,500 fellows to continue their work for the full 3 years.

Academic Year	Number of fellows studying	Federal payments To fellows	To institutions (In millions)
1958-59....	1,000	\$2.8	\$2.50
1959-60....	2,500	7.2	6.25
1960-61....	4,000	11.9	10.00
1961-62....	4,500	13.5	11.25
1962-63....	3,000	9.3	7.50
1963-64....	1,500	4.8	3.75
Total.....	49.5	41.25

Which students, which colleges?

The fellowships will be awarded by the Commissioner of Education to persons who have been accepted by a college or university offering a program the Commissioner has approved. Thus, to participate, the institution will apply to the Commissioner; the would-be fellow, to the institution.

Just having a good graduate program, however, is not enough to make an institution eligible to participate.

First, the program must be either new or expanded. The Federal grant the institution itself will receive for each fellow will depend on what share of the newness or the expansion it can reasonably charge to him.

Second, the program must be found by the Commissioner to be both a substantial addition to the Nation's graduate training facilities and a contribution to a wider geographic distribution of such facilities. The Commissioner's obligation to encourage a greater dispersion of graduate facilities throughout the country will of course impose some limit on the number of fellowships he can award at any one institution.

Third, the institution, in accepting students for fellowships, must give preference to persons interested in becoming college teachers.

As for the applicant for a fellowship, the law asks little of him directly, beyond an interest in college teaching. But the law makes it per-

fectly clear that, once he becomes a fellow, he must show himself worthy: his stipend will keep coming only as long as he maintains "satisfactory proficiency" in his work and devotes "essentially full time" to it. His gainful employment is strictly limited to part-time teaching or research at the institution, and must be approved by the Commissioner.

The field is open

Because college teachers are needed in every subject, the law puts no restriction on fields of study. Nor does it bind the student to college teaching when the fellowship ends; in not doing so it bows to the need for well-trained minds in other occupations, particularly in scientific research. Yet the language of the law leaves no doubt that this Title is directed toward the training of college teachers, who, because they train the teachers for all levels of education, are the very foundation of our educational system.

For the present, what?

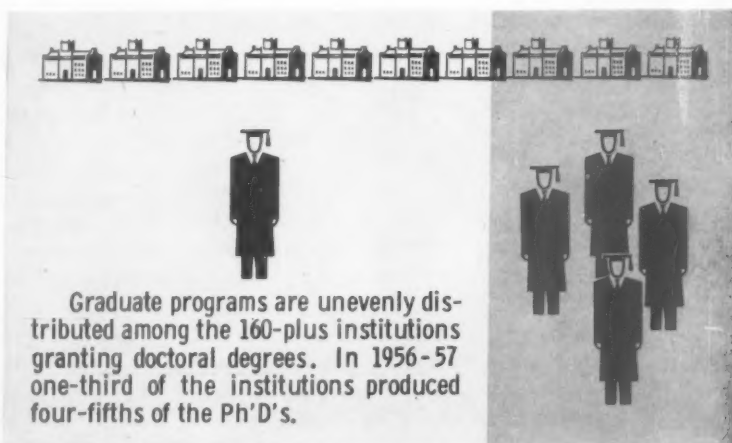
Out of the initial appropriation for the first fiscal year of the Act, \$800,000 has been allotted to Title

IV. Assuming that the first year's fellowships will average \$3,000 for the student and \$2,000 for the institution, this allotment will provide 160 fellowships.

The regulations under which the Title will operate are now being worked out. As soon as they have been issued, interested institutions may submit to the Commissioner their plans for new or expanded graduate programs. It is not yet known whether institutions will be able to develop satisfactory plans in time to permit the award of fellowships in the current academic year. *School Life* will carry announcements from time to time.

THE PROSPECT that in the coming years a large majority who enter college teaching may have only a year or so of advanced preparation is deeply disturbing. If this happens, the quality of college education will certainly undergo an insidious erosion which, though not dramatically apparent to the public, could have disastrous long-run effects upon our society. It is doubtful that any individual college or university, however strong its position, could hope to escape the impact of a quality shortage of this magnitude.

The President's Committee on Education Beyond High School





GUIDANCE, COUNSELING, AND TESTING

TITLE V. Guidance, counseling, and testing; identification and encouragement of able students: Part A, State programs; Part B, counseling and guidance training institutes.

FEDERAL FUNDS FOR FISCAL YEAR 1958-59—

AUTHORIZED: For Part A, \$15 million; for Part B, \$6¼ million.

INITIAL APPROPRIATION: For Part A, \$5.4 million, specified by the Congress; for Part B, \$2 million, allotted by the Office of Education.

The WHY of the TITLE

EVERY year about 200,000 able young people, some of them exceptionally talented, drop out of high school or turn their backs on college.

For nearly half of them, the problem is only lack of money; but all the rest drop out simply because they do not want to go to school anymore. Their lack of *wanting* is more complicated than lack of money, and indefinitely more complicated to overcome.

Strangers to themselves . . .

Many of them have never found out that they are bright, have never thought of themselves as college material. And nearly all of them have set their sights on goals far beneath their powers to reach, chiefly because no one ever helped them to look farther and higher.

. . . through lack of guidance

That anyone should suffer from lack of guidance in the American school system, which counts guidance as one of its chief features, is on the surface unbelievable. But beneath that surface is an array of facts that should convince the most incredulous. Among the facts, these—

★Although 1 full-time counselor to 250 or 300 high school students is generally considered optimum, the current ratio for the Nation as a whole is 1 to 750. In other words, high schools have not even half as many counselors as they actually need: the current shortage is conservatively estimated at 15,000.

★Although guidance programs are excellent in some areas, they are entirely nonexistent in others. More than half of the counselors in the United States are in only 7 States, serving more than one-third of the Nation's school children.

★An estimated two-thirds of today's school counselors do not meet minimum certification requirements.

★The 233 colleges and universities granting master's and doctor's degrees in guidance get two placement requests for every graduate; and many high schools with full-time guidance positions are unable to fill them.

★Too many of the colleges providing graduate programs in guidance have only minimum offerings.

★Only 19 States have testing programs; 14 States have none at all.

★Although every year millions of children change schools, only 6 States insist that schools maintain cumulative records on pupils.

★Although most State departments provide some guidance services, nearly all report not enough staff, not enough money, and not enough coordination of State and local programs.

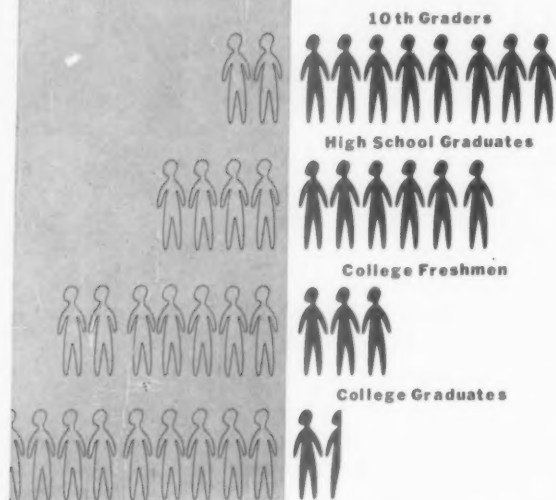
A FREE SOCIETY cannot commandeer talent: it must be true to its own vision of individual liberty. And yet at a time when we face problems of desperate gravity and complexity, an undiscovered talent, a wasted skill, a misapplied ability is a threat to the capacity of a free people to survive.

The "Rockefeller Report" on Education

Such inadequacies exist in the face of evidence from many well-designed studies that the benefits of organized guidance are substantial and persistent. Repeatedly the guided have shown themselves less likely than the non-guided to vacillate in their curriculum choices and more

SCHOOL DROPOUT

Out of every 10 fifth graders not even 2 graduate from college



likely to become honor students, more likely to continue their studies to graduate from college, more likely to make good emotional adjustments, and more likely to reach high cultural and economic levels.

The TITLE itself

TITLE V aims at bringing closer the day when the benefits of wise guidance will be available to all children. Its immediate goals are two: More guidance, including testing, in every State, and enough professional counselors and other guidance staff to do the job.

STATE PROGRAMS

Part A of Title V authorizes \$15 million a year for 4 years, beginning July 1, 1958, for grants to State educational agencies for better guidance programs, including both testing and counseling.

Double-barreled plan

To share in the funds, a State will submit a plan to the Commissioner, setting forth the details of its program for testing, guidance, and counseling.

For testing, the State plan is required to set forth a program that meets this one requirement: That it identify students with outstanding aptitudes and ability. The plan

is also required to set forth the "means of testing." Nowhere in the Act is any specification of what the "means" should be, or any requirement that the Commissioner compile a list of approved means.

For guidance and counseling, a State plan must set forth a program that does two things:

- ★Advises students on what courses are best suited to their ability, aptitudes, and skills.

- ★Encourages outstandingly able students to take courses that will prepare them for admission to institutions of higher education and, upon graduation, to enter such institutions.

In addition, the State plan must provide that the State educational agency will—

- ★Be the sole administrator.

- ★Make such reports to the Commissioner "as may be reasonably necessary to enable him to perform his duties."

- ★Follow such fiscal and accounting procedures as will assure that Federal funds are properly disbursed and accounted for.

Testing in private schools

Both the testing *and* the counseling—are to be carried out in the public secondary schools. But, because the Congress apparently intended that in the talent search no school should be missed, the testing program will go into the nonpublic secondary schools too.

In those States that have legal authority to test in nonpublic schools, the State educational agency will include those schools in its own testing program; in other States the Commissioner will arrange for tests in the nonpublic schools, in such a manner that students in both public and nonpublic schools in a State are tested in comparable ways, "at the same grade levels and under the same conditions." For instance, if a State contracted with a testing service to test in the public schools, the Commissioner would no doubt arrange for the same service to do the testing in the nonpublic schools.

Allotments and payments

From sums appropriated each year for these programs the Commissioner will first reserve up to 2 percent for Alaska, Hawaii, Puerto Rico, the Canal Zone, Guam, and the Virgin Islands, to be allotted among them according to their respective needs.

The rest will be allotted among the States on the basis of their school-age population; but if this rule-of-thumb results in any State's getting less than \$20,000 in any 1 year, proportionate reductions will be made in the other

GUIDANCE and COUNSELING

The two words are not synonyms. Guidance, the bigger term, includes counseling as one of its 6 elements:

1. Analysis: Helping the student get the facts about himself—from test results, cumulative records, and other means of identifying potentialities and interests.
2. Information: Giving him the facts about his environment—about educational and occupational opportunities and requirements.
3. Orientation: Helping him to get acquainted with the school program and educational and vocational opportunities and requirements.
4. Counseling: Helping him to develop self-understanding and to develop his educational and occupational plans.
5. Placement: Helping him carry out those plans.
6. Followup: Determining how his plans worked out and how effectively the educational program served him.

States' allotments to bring the low State up to \$20,000.

For the first year, the Federal Government will pay all the costs of the new programs for the States; thereafter each State must match the Federal funds fifty-fifty, using either State or local funds or both.

In each State where the Commissioner arranges for testing in non-public schools, he will pay the first year's costs of such testing out of the State's allotment; in the following 3 years he will pay only half of the costs. Presumably, the non-public schools themselves will pay the other half of their testing costs in those 3 years.

INSTITUTES

To make sure that the programs in Part A will have the effectiveness that only a strong professional guidance staff can give, the Congress has written Part B into Title V. It authorizes \$6¼ million for 1958-59 and \$7¼ million for each of the next 3 years, to establish training institutes to improve the qualifications of people who are, or will be, engaged in guidance in the secondary schools.

These institutes will be operated by institutions of higher education, under contracts with the Commissioner. They will be either for short terms or for regular sessions.

Individuals who attend—if they either are already engaged in counseling and guidance in a public secondary school or are preparing to be so engaged—are eligible for a stipend of

\$75 a week during their attendance, plus \$15 a week for each dependent. The stipend is not automatically given, however: the individual must apply to the institution operating the institute. The Office will keep the public informed, through *School Life* and other media, on the institutions that will participate, when the institutes will open, and progress in general.

For these institutes, as well as for those in Title VI, every effort is now being made to lay plans that will coordinate State programs and State needs with the work of the institute. Both college and university officials and chief State school officers, meeting with Office staff, have expressed their eagerness for such coordination, well aware that it will make the State programs and the institutes serve each other and thus enhance the value of both.

Allotments to the States under Title V, Part A, for guidance, counseling, and testing, fiscal year 1958-59, under (1) total authorization and (2) the initial appropriation

STATE	Authori- zation	Appro- priation	STATE	Authori- zation	Appro- priation
Alabama.....	\$323,018	\$115,359	Nebraska.....	\$121,607	\$43,429
Arizona.....	106,026	37,865	Nevada.....	21,281	20,000
Arkansas.....	177,850	63,515	New Hampshire..	47,503	20,000
California.....	1,099,783	392,763	New Jersey....	438,165	156,481
Colorado.....	144,028	51,436	New Mexico....	87,405	31,215
Connecticut....	178,990	63,922	New York.....	1,241,531	443,385
Delaware.....	34,582	20,000	North Carolina..	445,385	159,059
District of Co- lumbia.....	51,303	20,000	North Dakota..	62,324	22,257
Florida.....	318,458	113,730	Ohio.....	778,664	278,082
Georgia.....	374,701	133,816	Oklahoma.....	205,592	73,422
Idaho.....	62,704	22,393	Oregon.....	152,009	54,286
Illinois.....	771,824	275,639	Pennsylvania...	905,972	323,547
Indiana.....	392,182	140,059	Rhode Island...	66,124	23,615
Iowa.....	241,314	86,180	South Carolina..	253,474	90,523
Kansas.....	180,130	64,329	South Dakota..	64,224	22,936
Kentucky.....	299,077	106,808	Tennessee.....	330,239	117,937
Louisiana.....	302,117	107,894	Texas.....	842,889	301,019
Maine.....	82,845	29,586	Utah.....	85,125	30,400
Maryland.....	247,394	88,351	Vermont.....	33,822	20,000
Massachusetts..	382,682	136,666	Virginia.....	342,020	122,144
Michigan.....	677,959	242,117	Washington....	233,713	83,465
Minnesota.....	294,137	105,044	West Virginia..	199,511	71,251
Mississippi....	229,153	81,837	Wisconsin.....	334,039	119,294
Missouri.....	344,680	123,094	Wyoming.....	29,262	20,000
Montana.....	61,183	21,850	TOTAL.....	15,000,000	5,400,000

NOTE: Allotments to Alaska, Canal Zone, Guam, Puerto Rico, and Virgin Islands, to be determined by the Commissioner of Education, under Sec. 1008 of the Act.



LANGUAGE DEVELOPMENT

TITLE VI. Language development: Part A, centers for research and studies; Part B, language institutes.

FUNDS FOR FISCAL YEAR 1958-59—

AUTHORIZED: For Part A, such sums as may be necessary but not more than \$8 million; for Part B, \$7¼ million.

INITIAL APPROPRIATION: \$400,000 for each part, allotted by the Office of Education.

The WHY of the TITLE

IF we are not yet in the middle of a period of intense international competition and cooperation, we are at least well into the beginning of it; and lately we have become uncomfortably aware that as a Nation we lack a highly necessary qualification: Proficiency in other people's languages.

Some, rarely taught . . .

Millions of people—three-quarters of the earth's population—speak languages taught in only a few, if any, schools and colleges in the United States. Chinese is the native tongue of 500 million people, but only a handful of our schools offer courses in any of its dialects. High school students can take none of the 4 major African languages, and only a few can take an Asiatic or Slavic language. The college student, if he is determined enough, can find a school that teaches Arabic or Russian, but his chances of finding a class in a major African language are practically nil.

. . . Others, little and late

Our slighting attention to many modern languages is not particularly compensated for by our attention to others. In the past 35 years, even as our international contacts have multiplied and ramified, more and more of our high schools have been dropping language courses and the number of language students has been falling off. Thirty-five years ago, 27 percent of our high school students were taking at least one modern foreign language; in 1955 the percentage was down to less than 15, with

most of the students taking either French or Spanish and less than 1 percent taking German, the language of science.

Even the student who does take French or Spanish begins too late and stops too soon. His school probably does not offer enough courses for him to master the language (less than half our high schools offer *any* languages at all), and very often the quality of teaching does not inspire him to continue his study.

In our institutions of higher education the picture has not been much brighter, although more languages are available there. Not all colleges offer language courses. Only a few more than 15 percent of the students were taking foreign languages in 1955. For many of *them*, too, it is a case of starting too late and ending too soon.

Back of these inadequacies are many circumstances, but none weighs as heavily as the shortage of good language teachers. Archibald T. MacAllister, director of language instruction, Princeton University, in his testimony before the Senate Committee on Labor and Public Welfare, February 27, 1958, said that the greatest single need in modern foreign languages today is "the retraining and improving of language teachers and methods." Of the 1957 graduates preparing to teach, only 1.4 percent had majored in a foreign language. Many of our foreign language teachers majored in a subject other than the language they teach—probably because they teach Spanish or French only part time and teach it because the school has no one else to teach languages.

Every reason

Actually, the United States has every reason to be linguistically educated. Its investments outside its own shores are the largest of any nation in the world; its diplomatic corps represents it everywhere; its armed forces are stationed in many areas of the globe; and its citizens are the world's most ubiquitous tourists. Yet, it stands in desperate need of more and better modern foreign language teaching.

The plea that English is a second language in many countries does not excuse us from learning other tongues. We must be able to speak in the other man's language to establish effective working relations with him, to avoid

misunderstanding between him and us, and to show him the courtesy due a friend. The provisions that Congress has included in the National Defense Education Act for the improvement of modern foreign language teaching are, indeed, for the promotion of defense education.

The TITLE itself

TITLE VI attacks the problem at its root: The shortage of good language teachers. Through Part A (*Centers and Research and Studies*) it seeks more teachers of important but rarely taught languages; through Part B (*Language Institutes*) it seeks better teachers for the elementary and secondary schools.

CENTERS AND RESEARCH

Actually, Part A encourages two things—not only more study of the neglected languages but more research on language instruction.

More of the neglected languages

To get more proficiency in the rarely taught languages, Part A offers aid both to institutions of higher education and to individual students.

To the institutions it will pay, for the period between July 1, 1958, and June 30, 1962, up to one-half of the cost of operating centers to train specialists in certain languages. The matter of *what languages*—the critical languages, so to speak—will be determined by the Commissioner, who will be looking for (1) languages in which the Federal Government—or business, industry, and education in the United States—needs proficiency and (2) languages in which adequate instruction is not readily available.

Institutions that will receive Federal funds will be those that have contracted with the Commissioner to operate a center. In addition to instruction in a language, the contracts may provide also for instruction in subjects needed to understand the peoples in areas in which the languages are spoken (if such instruction is not available elsewhere)—history, political science, linguistics, economics, sociology, geography, and anthropology. The costs on which the institution may spend Federal money include not only the costs of sending its staff to travel or study in regions where the language is spoken but also the costs of bringing foreign scholars to the centers to teach. Up to 50 percent of costs may be paid with Federal funds. In each of the years of the Act, a maximum of \$8 million is authorized for Part A activities.

To qualified individuals, for the same period, the Act offers to pay stipends while they are taking advanced train-

ing in any modern foreign language on the Commissioner's "Needed" list, or in any field that will give them greater understanding of the people living in countries where the language is commonly spoken. The stipends will be for either short terms or regular sessions in any institution of higher education, and will include allowances for dependents and for travel to and from the institution. But to receive a stipend the individual must give reasonable assurance that, when he has completed his studies, he will be available either for teaching a modern foreign language in institutions of higher education or for "service of a public nature."

Research and studies

Part A also authorizes the Commissioner to make studies and surveys to find out exactly what the needs are in foreign language instruction. For example: what, besides proficiency in the language itself, should be taught, and how should it be taught? What are the best ways of teaching a language? What materials do we need to develop?

In addition, the Commissioner is authorized to develop specialized materials that will be useful in training those who teach languages and "related" subjects.

All this the Commissioner may do either directly, i. e., in the Office of Education, or by contract with others—conceivably with either individuals or organizations, or with language centers, colleges, or universities.



Languages of more than three-fourths of the world's people are more or less neglected in U. S. schools and colleges.

INSTITUTES

The language institutes visualized in Part B will focus on one thing—the improvement of teaching modern foreign languages in all of our elementary and secondary schools, particularly through new teaching methods and instructional materials. They will offer advanced training to language teachers, both present and prospective, and to anyone who trains or supervises such teachers.

Federal money—\$7¼ million for each of the next 4 fiscal years, beginning July 1, 1958—has been authorized to help both the institutions that establish the institutes and the individuals who attend. The institutions, through contracts between themselves and the Commissioner, will receive funds to operate the institutes, either for short terms or for regular sessions. Public school individuals attending will receive stipends at the rate of \$75 a week for themselves and \$15 a week for each dependent for the period they are attending an institute.

Institutions that are ready to apply for financial aid for either a center or institute—or both—should apply directly

to the Commissioner. Individuals wishing to receive stipends should apply directly to the institutions. To receive a stipend under Part B, the individual will have to attend one of the institutes; to receive a stipend under Part A, however, he may attend any institution that will give him adequate training—not necessarily one of the centers receiving Federal assistance. The size of the stipend under Part A is not specified in the Act; this is a matter for the regulations to decide.

IT IS NOT possible to understand what is in the minds of other people without understanding their language, and without understanding their language it is impossible to be sure that they understand what is in our minds. Each language, including our own, is a delicate precision tool of immense potential value.

John Foster Dulles



COMMUNICATIONS MEDIA

TITLE VII. Research and experimentation in more effective utilization of television, radio, motion pictures, and related media for educational purposes.

FEDERAL FUNDS FOR FISCAL YEAR 1958-59—

AUTHORIZED: \$3 million.

INITIAL APPROPRIATION: \$500,000, allotted by the Office of Education.

ONE of the great men of communication research has speculated about the conclusions which a social analyst might have reached if he had been working 20 years after the first publication of Gutenberg's Bible. If his thinking were tempered by normal scientific caution, he probably would have had to say that, while this new thing called printing had promise, it hardly had remade the world. Most people still could not read, and most of those who could still used hand-copied scrolls; most people did not as yet know that such a thing as a printed book existed. Here and there, the social analyst might have said, there are flashes of promise on the horizon,

but hardly a major alteration in the ways men live and work together.

An equally narrow assessment of the impact of communication change upon modern times would be defensible. Painfully little is known yet with certainty . . . [But we believe] there is profit in trying to go further, and that a larger pattern of insight and evaluation based on what is now known can provide some guidance for those concerned with the significance of the growth of mass communication.

EDUCATIONAL POLICIES COMMISSION

The WHY of the TITLE

MANY of the problems current in education warrant a full look at the use of mass communication media as aids to teaching. The shortage of teachers, the vast amount of knowledge instructors must impart to students, and the excellence of scholarship our modern world demands of graduates puts great strain on conventional teaching methods. We cannot afford to stand still educationally in a racing world. We must



Science aids science: Television brings the good teacher to many classrooms

ALABAMA EDUCATIONAL TELEVISION CO.

explore every avenue offering better means of imparting knowledge.

Of the various communications media—television, radio, motion pictures, tape recorders, and others—some are already playing large parts in education; others are just beginning to make their contributions. TV, one of the latest on the scene, already has been widely tried. Already 30 American cities have closed-circuit television systems and 40 more are building or planning to build educational TV stations. Washington County, Md. (Hagerstown), is well into the third year of a 5-year experimental project involving over 12,000 students in 14 schools. Both commercial and educational TV stations offer courses for home study. Educational TV programs have tentatively explored the curriculum, from arithmetic to zoology. But the potential of TV, like the potential of all the other media, has yet to be adequately measured.

Educators and laymen alike are looking at these media and asking questions. Are we doing all we can with motion pictures as a teaching aid? Mechanical and electronic equipment is revolutionizing language learning—how may we improve these devices to insure competence in language learning? And television, with its promise of an unlimited future, what can we expect of it? How can we make it give us all that it is capable of? And what are its fullest capabilities? What expanded use can we make of slides, filmstrips, magnetic tapes, radio? Where best can we use these devices—for adult classes, in conventional classrooms, in the home? What subjects do they lend themselves to most effectively? The list of

questions is long—and the answers are urgently needed.

The TITLE itself

TITLE VII aims at putting an end to the waste that goes on because educators do not have the facts they need to answer the questions. Its purpose is to get at the advantages of these media, at their limitations, at all the shades of *pro* and *con* that lie in between—and to get at them by the efficient, objective methods of research.

The title authorizes a total of \$18 million over a 4-year period (\$3 million in 1958-59 and \$5 million in each of the next 3 years) for a program with a double purpose: Getting the facts and assisting schools and colleges to make wider and better use of new communications media. Part A of the Title is given over to the first purpose; Part B, to the second.

Getting the facts

What facts, exactly, can best be told by quoting the Act's definition of the kind of research and experimentation it calls for—

... research and experimentation in the development and evaluation of projects involving television, radio, motion pictures, and related media of communication which may prove of value to State or local educational agencies in the operation of their public elementary or secondary schools, and to institutions of higher education, including the development of new and more effective techniques and methods—

(1) for utilizing and adapting motion pictures, video tapes, and other audio-visual aids, film strips, slides and other visual aids, recordings (including magnetic tapes) and other auditory aids, and radio or television program scripts for such purposes;

(2) for training teachers to utilize such media with maximum effectiveness; and

(3) for presenting academic subject matter through such media.

The Commissioner is authorized to use two methods of "conducting, assisting, and fostering" such research and experimentation. He may—

(1) make grants-in-aid to public or nonprofit private agencies, organizations, and individuals;

(2) enter into contracts with public or private agencies, organizations, groups, and individuals.

To enhance the meaning of whatever programs he conducts or finances under the title, the Commissioner must see that they are coordinated with similar programs conducted by others.

Getting the facts out

Part B of the title sets forth 4 ways in which the Commissioner "shall" or "may" keep State or local educational agencies, as well as institutions of higher education, informed about the latest developments in the educational uses of the various media—including, of course, the findings in the research projects under the title. He—

1. Shall make studies and surveys
2. Shall publish catalogs, reviews, bibliographies, and other needed materials.
3. May, upon request, provide advice, technical assistance, and demonstrations to State and local educational agencies and institutions of higher education.
4. Shall publish an annual report of developments in the use of communications media for educational purposes, including projects under the title.

Advisory committee

To help the Commissioner carry out his duties under Title VII, Part C establishes an Advisory Committee on New Educational Media. It will have 2 *ex officio* members—the Commissioner, who will be chairman, and a representative of the National Science Foundation—and 12 members appointed by the Commissioner:

Three persons identified with the sciences, liberal arts, or modern foreign languages in institutions of higher education

Three teachers or supervisors in elementary or secondary schools

Three persons with demonstrated ability in the use or adaptation of communications media for educational purposes

Three representatives of the lay public who have shown interest in the subject.

This Committee has much responsibility. It must consult with the Commissioner, advise him, and make recommendations to him. It must review all applications for grants-in-aid and all proposals to enter into contract, and must certify approval for any it believes will fulfill the title.



TECHNICIANS FOR DEFENSE

TITLE VIII. Area Vocational Education Programs

FEDERAL FUNDS FOR FISCAL YEAR 1958-59—

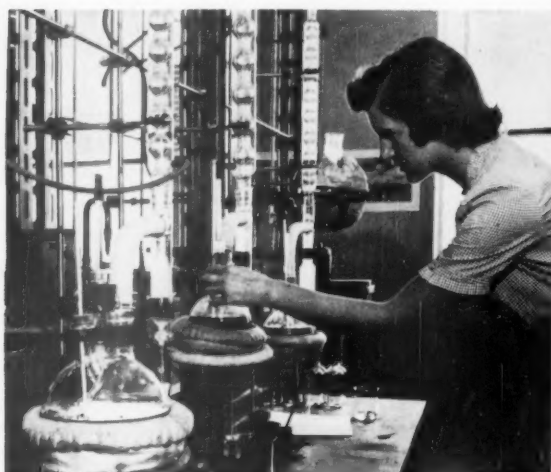
AUTHORIZED: \$15 million

INITIAL APPROPRIATION: \$3¾ million, specified by Congress.

The WHY of the TITLE

EVERY engineer needs 5 technicians behind him if he is to put his knowledge and skills to their best use. But in the United States we have more engineers (in short supply though they be) than technicians—and scientists are performing jobs that technicians could do to better advantage. Chemists and mechanical engineers, for instance, would have more time for creative work if they were assisted by a strong second line of specialists—chemical technicians in the laboratories and skilled draftsmen at the drawing boards.

The United States needs technicians in all areas of scientific development: Electricity, electronics, atomic energy, engineering, chemistry, instrumentation, tool design, aviation, and industrial planning. To not produce technicians fast enough means denying ourselves many of the fine advances of science; it means weakening our first line of defense—skilled manpower—at the very moment we should be making it as strong as we can.



STANDARD OIL DEVELOPMENT CO.



GENERAL MOTORS CORPORATION

The TITLE itself

TITLE VIII, which aims at alleviating this manpower shortage, actually is an amendment to another act. Actually it adds a new title—Title III—to the George-Barden Act, which for a dozen years has augmented the vocational education programs of less-than-college grade begun by the Smith-Hughes Act back in 1917.

Something new

True, vocational education of less-than-college grade is nothing new. With its clearly defined categories (five now—agriculture, home economics, trades and industry, distributive occupations, and practical nursing), it long has been a familiar part of every State school system.

But the kind of vocational education Title VIII provides for—"area vocational education"—that is something new for most States. It's so new, in fact, that some of the chief State school officers, discussing it in conference last month, thought it should be called "technical education" instead of "vocational education," as a signal to everyone that it is definitely not "business as usual."

For this is education that will train the workers the Title describes as "highly skilled technicians in recognized occupations requiring scientific knowledge . . . in fields necessary for the national defense." What these phrases mean, in terms of specific fields, is now in the process of being decided, but there can hardly be any doubt that they mean electronics technicians, laboratory assistants, chemical aides, technicians in air conditioning, experts who know what the flashing lights in an automated

factory are saying—in short, any one of the hundreds of kinds of highly skilled workers who are needed to help turn the notes and drawings of scientists and engineers into workable products and processes.

What it says

Some of the questions people are asking about area vocational education will be answered when the regulations are final, but most of them are answered by the Act itself:

Q. *What, other than concentrating on technicians, are the characteristics of an area vocational education program?*

A. It is intended to provide technical training in those geographic areas now short of vocational education opportunities; it consists of 1 or more courses of less-than-college grade; and it is conducted under public supervision and control and on an organized, systematic class basis.

Q. *Who may enter the program?*

A. Both youth and adults. They must either have finished junior high school or be at least 15 years old, and must be able to profit from the instruction. The adults, for example, may be workers who need training for higher level jobs in industries, or technicians who need to brush up on the latest developments in their fields. It goes without saying that they should have strong backgrounds in science and mathematics if they are to be successful in the occupations for which they seek training.

Q. *How much Federal money has been authorized for these programs?*

A. \$15 million a year for 4 fiscal years to be allotted among the States.

Q. *How does each State share in the amounts appropriated under this authorization?*

A. In the same ratio as it shares in the total amount for the other programs under the George-Barden Act. If it does not require all of its share in any fiscal year, the remainder becomes available for reallocation from time to time to the other States.

Q. *How does a State establish its eligibility for Federal funds?*

A. It must amend its State plan for vocational education under the Smith-Hughes and George-Barden Acts by adding a new part for area vocational programs. This new part must—

1. Make the State board the sole agency for either (a) administering the new program or (b) supervising the administration by State or local agencies.
2. Set up minimum qualifications for personnel.
3. Show plans, policies, and methods.
4. Provide for efficient fiscal methods.
5. Provide for the State board's making such reports to the Commissioner as he needs to perform his functions.

Q. *Must the State match the funds?*

A. Yes, dollar for dollar. Both State and local funds can be counted as matching.

Q. *What may a State use the Federal funds for?*

A. Any of the following:

1. Programs of administration, supervision, and teacher training.
2. Salaries and travel expenses of State or local personnel.
3. Travel expenses of advisory committees or State boards.
4. Acquiring instructional equipment and keeping it in working order.
5. Purchasing instructional supplies and teaching aids.
6. Transporting students.
7. Getting information needed to develop the programs.
8. Programs to train out-of-school youths.
9. Related instruction for apprentices.
10. Planning and developing the programs.

Q. *Who owns the equipment and teaching aids purchased with Federal funds?*

A. The State.

Moving ahead

Title VIII seems to have an easier row to hoe, from the standpoint of writing the regulations, than many of the other titles in the Act, thanks chiefly to the long history of State-Federal cooperation in vocational education. Many of the rules and regulations that apply to the Smith-Hughes and George-Barden Acts apply also to Title VIII; and the questions that still await final decision—for example, How broadly did the Congress intend "national defense requirements" to be interpreted?—are few.

Three experts in vocational education have joined the Office staff for the next few months expressly to assist in setting up the new "technical education" programs. They are Lynn A. Emerson, professor emeritus in industrial education, Cornell University; Lewis A. Wilson, former commissioner of education in New York State; and Walter Arnold, executive officer and director of vocational education programs in the State of Kansas. In October the Office published a bulletin by Dr. Emerson, *Vocational-Technical Education for American Industry* (available from the Government Printing Office, Washington 25, D. C., for 25 cents a copy), which should prove useful to educators establishing and operating the programs under the Title.

In addition, Michigan State University has loaned George Brandon to the Office for a period of two weeks to work on this program. Dr. Brandon is the author of *Twin City Technicians*, a recent research report on technical training.

The Division of Vocational Education will assist States in the development of programs through visits of its staff members to State agencies and through the preparation and distribution of informational material pertaining to this Title of the Act.

STRONG forces . . . promise to promote wide concern and provision for . . . technical education: The advent and development of nuclear power, the implications of automated industry, the dynamic application and "gadgeteering" of American invention, the Soviet superiority (at least in numbers) of engineering and technician education, the nature of our occupational complexity, the recognition of communication and human relation values—all movements compelling a recognition of change in mid-century education.

*Twin City Technicians,
Michigan State University, 1957*

Allotments to the States under Title VIII, fiscal year 1958-59, under (1) the total authorization and (2) the initial appropriation.

STATE	Authori- zation	Appropri- ation
Alabama.....	\$418,827	\$104,707
Arizona.....	73,722	18,430
Arkansas.....	311,906	77,977
California.....	681,801	170,450
Colorado.....	124,337	31,084
Connecticut....	131,284	32,821
Delaware.....	68,908	17,227
District of Columbia....	73,873	18,468
Florida.....	222,750	55,687
Georgia.....	446,298	111,575
Idaho.....	87,515	21,879
Illinois.....	627,416	156,854
Indiana.....	390,965	97,741
Iowa.....	344,505	86,126
Kansas.....	221,500	55,375
Kentucky.....	426,351	106,588
Louisiana.....	296,768	74,192
Maine.....	92,256	23,064
Maryland.....	179,569	44,892
Massachusetts..	258,464	64,616
Michigan.....	515,477	128,869
Minnesota.....	350,130	87,533
Mississippi.....	396,286	99,072
Missouri.....	422,814	105,703
Montana.....	80,788	20,197
Nebraska.....	173,766	43,442
Nevada.....	68,908	17,227
New Hamp- shire.....	68,908	17,227
New Jersey.....	261,975	65,494
New Mexico....	80,750	20,188
New York.....	854,102	213,526
North Carolina..	603,146	150,786
North Dakota..	114,389	28,597
Ohio.....	644,405	161,101
Oklahoma.....	267,282	66,821
Oregon.....	152,987	38,247
Pennsylvania...	772,321	193,080
Rhode Island...	73,174	18,293
South Carolina..	306,791	76,698
South Dakota..	112,860	28,215
Tennessee.....	446,347	111,587
Texas.....	748,481	187,120
Utah.....	68,908	17,227
Vermont.....	68,908	17,227
Virginia.....	391,073	97,768
Washington.....	208,569	52,142
West Virginia..	248,969	62,242
Wisconsin.....	372,414	93,103
Wyoming.....	68,908	17,227
Outlying parts of the U. S.:		
Alaska.....	68,908	17,227
Canal Zone.....		
Guam.....	40,834	10,209
Hawaii.....	71,175	17,794
Puerto Rico....	375,815	93,954
Virgin Islands..	20,417	5,104
TOTAL.....	15,000,000	3,750,000



SCIENCE INFORMATION

TITLE IX. Science Information Service

FEDERAL FUNDS FOR FISCAL YEAR 1958-59—

AUTHORIZED: Such sums as may be necessary.

INITIAL APPROPRIATION: Included in the total appropriation for the National Science Foundation.

The WHY of the TITLE

PERHAPS no challenge is greater to the alert scientist of today than that of keeping abreast of the advancing stream of scientific knowledge. A discovery a thousand miles away may make his own research out of date, his experiment useless. From the findings of a fellow scientist at his own back door he may gain knowledge that helps him in his own work—if he knows about it. Yet, were he to read all the material that is available, or should be available, to him on his field and fields related to it, he would have little time for work.

To remain a leader among nations, the United States must be a leader in science. The good of the Nation, the good of science, demand that we provide our specialists with an information service that is quick, timely, accurate, and centrally located.

The TITLE itself

TITLE IX, the only part of the Act not charged to the Office of Education, authorizes the National Science Foundation to establish a Science Information Service and a Science Information Council. The second will advise and consult with the first; and both will have one end in mind: Providing the scientist with information he needs, quickly and effectively.

Science Information Service

The Science Information Service is charged with two responsibilities. It will provide indexing, abstracting, translating, and other services necessary to disseminate scientific information; and it will undertake programs to develop better and faster methods—mechanized systems, for example—of making the information available.

Actually, these functions are not new to the National Science Foundation. Ever since the Foundation was established, in 1950, its Office of Scientific Information has been giving such services to the American scientist. What this new title *does* do is to spell out authority in a certain field, without curtailing any of the present activities of the Foundation for disseminating scientific information.

Science Information Council

Really new, however, is the Science Information Council, which will assist the Science Information Service in carrying out its twofold assignment.

The Council will have 19 members. Four will be *ex officio*:

The head of the new Science Information Service

The Librarian of Congress

The director of the Library of the U. S. Department of Agriculture

The director of the National Library of Medicine

The other 15 will be appointed by the director of the National Science Foundation:

6 leaders in the fields of fundamental science

6 leaders in librarianship and scientific documentation

3 outstanding representatives of the lay public who have demonstrated an interest in the problems of communication.

Members of the Council will hold office for 4 years each except that, of those initially appointed, 4 members will hold office for 3 years, 4 for 2 years, and 3 for 1 year: thus each year's committee will be composed chiefly of continuing members. No appointed member will be eligible for reappointment until a year has elapsed after the end of his preceding term.

The Council will meet at least twice a year. It will meet more often if a majority of its members believe that additional conferences are needed.

Appropriations

For fiscal year 1959 and each succeeding fiscal year, Congress authorized "such sums as may be necessary."



STATISTICAL SERVICES

TITLE X (Section 1009): Improvement of statistical services of State educational agencies.

FEDERAL FUNDS FOR FISCAL YEAR 1958-59—

AUTHORIZED: "Such sums as the Congress may determine . . . [but] the payments to any State . . . for any fiscal year may not exceed \$50,000."

INITIAL APPROPRIATION: \$400,000, allotted by the Office.

The WHY of the TITLE

IN today's massive business of gathering, analyzing, and interpreting data about the public schools, the State educational agencies are squarely in the middle. From every district, large or small, they must painstakingly gather the facts: on pupils and teachers, organization and curriculum, sites and classrooms and equipment, moneys received and moneys spent—in short, on anything they deem important to the quality of education. And, being the collectors of data, they are also perforce the suppliers. They face an almost overwhelming demand for facts, not only from the legislatures, research organizations, and citizens of their own States, but from those who, like the Office of Education, seek the facts for the Nation as a whole.

What is needed

Fact seekers want two things in a statistical service: Promptness and accuracy. Yet many State educational agencies have neither the staff nor the equipment to meet the demand for promptness. And from State to State—even from district to district—many educational terms and units of measure vary so much in their meaning that national statistics based on them are blurred and unreliable.

The TITLE itself

TO help overcome these shortcomings, Section 1009 of Title X of the National Defense Education Act authorizes "such sums as Congress may determine" for annual grants to the States over a 4-year period, beginning with this fiscal year. (Section 1009 is the only section in Title X that authorizes a program; the other eight set forth certain specifics about administration, method of payment, etc., and are the ones that give the title its name: *Miscellaneous Provisions*.) No State, under this section, may get more than \$50,000 in any 1 year; and it must match each Federal dollar with one of its own.

Who does what

The first thing that a State must do to get a grant under Title X—assuming State legislative authority for receiving it and the availability of State funds to

match it—is to submit a plan to the Commissioner of Education. Included in this plan must be the program the State will carry out to—**improve and strengthen the adequacy and reliability of educational statistics provided by State and local reports and records and the methods and techniques for collecting and processing educational data and disseminating information about the condition and progress of education in the [State].**

So long as the program is a new one or an addition to an existing program, and fulfills the purpose of the Act, the State can make it anything it wants. Conceivably a State might decide that it should spend its entire grant on improving the collection of data from local educational units; if so, its program might include the development of accounting and reporting manuals and a series of training conferences for local personnel. Or it might prefer to concentrate on improving methods of getting data from other State agencies within the State, or on installing mechanical equipment to expedite the processing and reporting of data.

One State may use the grant to appraise its existing statistical services and to expand or strengthen them in the light of its findings. Another may put into practice the standard terminology and classifications developed in recent years by the nationwide cooperative projects on educational records and reports. Another may increase its staff so that it can meet requests for data with thoroughness and promptness. Each State has the opportunity of finding what its needs are and of supplying them.

Whatever the State's choice, it is its own. True, the plan must meet three requirements to be approved by the Commissioner, but these are requirements that every State plan under the Act must meet, and in no way do they

pertain to the program itself. They are these:

★The plan must be administered solely by the State educational agency.

★The agency must make such reports to the Commissioner "as may be reasonably necessary to enable [him] to perform his duties."

★Fiscal control and fund accounting procedures must be such as to assure that Federal funds are properly disbursed and accounted for.

The Commissioner of Education is now preparing a preliminary draft of the regulations under which Section 1009 of Title X will be administered. These regulations will be developed after full consultation with the chief State school officers, and, when they are complete and have been published in the *Federal Register*, all will be in readiness, on the Federal level, to put the program in action. Out of the initial appropriation for the first year of the Act, \$400,000 has been allotted to Section 1009—enough to put nearly \$1 million to work within the next few months.

Means to an end

If circumstances would shape themselves so that every State every year could take advantage of the maximum specified in Title X, by the end of 4 years the States and the Federal Government together would have put \$22 million into the improving of statistical services in State educational agencies. But even at less than maximum pitch, the joint effort should bring the collection and dissemination of educational information close to the goals envisioned by the House Committee on Education and Labor in its report on the National Defense Education Act of 1958:

Fast schedules in State educational agencies for meeting local, State, and national demands for data.

Complete and up-to-date reporting by the Office of Education.

Full facts on which to base decisions about educational programs.

Adequate data to facilitate research.

Standard terminology, and comparability of data throughout the country.

THE ASTOUNDING LACK OF FACTS

WE HAVE been struck above all else by the astounding lack of accurate, consistent, and up-to-date facts, and by how little this Nation knows about its enormously vital and expensive educational enterprise in contrast to how much it knows, in great detail, about agriculture, industry, labor, banking, and other areas.

We speak not of those difficult facts about education which can only be dug out by painstaking research but of those which are as susceptible to prompt and regularized reporting as steel output in Pittsburgh, potato prices in Maine, bricklayers' wages in Houston, hogs slaughtered in Chicago and bank loans in San Francisco, all of which are reliably reported every month or every week by various Federal agencies.

Until the gross deficiencies in education reporting are remedied, all advisory work, all research, all educational planning throughout the country, and all efforts by individual States, communities, and institutions to devise effective actions will be severely handicapped.

President's Committee on Education Beyond the High School



PUTTING THE ACT TO WORK

IN the two months since President Eisenhower signed the National Defense Education Act, literally hundreds of persons both individually and representing dozens of organizations have met in Washington with the Commissioner of Education and his staff, to help identify the problems inherent in the administration of the Act and to advise on policy. Excerpts from the Office calendar—a list is given overleaf—indicate how widely the Commissioner has sought counsel in his efforts to know and serve the will of the people.

Meanwhile the Office of Education has initiated a recruitment program among professional educators to obtain the staff members it needs to administer the Act. The Act will be administered within the established framework of the Office, under the four divisions logically responsible for the various titles or parts of titles: the Divisions of State and Local School Systems, Higher Education, Vocational Education, and Statistics and Research Services:

TITLE II. Loans to college students, *Higher Education*.

TITLE III. Strengthening science, mathematics, and modern foreign languages, *State and Local Schools*.

TITLE IV. National Defense Fellowships, *Higher Education*.

TITLE V. Guidance, counseling, and testing: Part A, State programs, *State and Local Schools*; Part B, Institutes, *Higher Education*.

TITLE VI. Language development, *Higher Education*.

TITLE VII. Research, etc., on educational uses of new communications media, *Statistics and Research Services*.

TITLE VIII. Area vocational education, *Vocational Education*.

TITLE X, SEC. 1009. Improving statistical services of State educational agencies, *State and Local Schools*.

STATE AND LOCAL SCHOOLS

Those parts of the Act that affect State and local school programs will be administered from the Division of State and Local School Systems, under the direction of Assistant Commissioner E. Glenn Featherston:

Title III: Strengthening Science, Mathematics, and Modern Foreign Languages.

Title V: Guidance, Counseling, and Testing (Part A, State programs).

Title X: Improvement of statistical services of State educational agencies.

A NEW BRANCH

For the first two—Titles III and V—a new branch has been created in the Division—the *Aid to State and Local Schools Branch*. John R. Ludington, formerly assistant director of the Instruction, Organization, and Services Branch of the Division, is the Director. His executive assistant is Clifford A. Carlson, formerly chief of the management advisory branch, Bureau of State Services, U. S. Public Health Services; and his program management officer is Charles E. Dell, formerly chief of the budget methods and procedures section of the Department of Agriculture.

Within this new branch are four sections:

1. Science, Mathematics, and Foreign Language Section. At this writing, recruitment is in process for the chief of this section, who must be a scholar-administrator with proficiency in one of the three subjects. Marjorie Johnston, Office specialist for foreign languages, has transferred from the Secondary Schools Section to the new section. Other specialists are being recruited.

2. Guidance, Counseling, and Testing Section. This section comes readymade into the new branch, having been transferred out of the In-

struction, Organization, and Services Branch. Chief is Frank L. Sievers.

3. Loans to Schools Section. This section will be concerned with the loans that will be made to nonprofit private schools under Title III. George C. Decker is its chief. He formerly headed the educational advisory services to the college housing program, in the Division of Higher Education, Office of Education. Cecil Yarbrough, formerly superintendent of schools of Snyder, Tex., also will be on the staff of this section.

4. State Plans and Reports Section. All the State plans and all the State reports under Titles III come under review by this section. Its chief is Lloyd W. King, recently executive secretary for the American Textbook Publishers Institute and formerly the State commissioner of education for Missouri. Assisting him is Robert A. Crummel, program analyst, who formerly served the American Council on Education and the Committee for International Economic Growth.

TO ADMINISTER TITLE X

One program for State and local school systems will be administered *outside* the new branch—simply because it is closely interwoven with the ongoing cooperative record and reports program in State school administration. This is the program set forth in Section 1009 of Title X—the program to help State departments of education improve their statistical services.

It has been assigned to the school Administration Branch, under the direction of Fred F. Beach. There it will be administered in the State School Systems Section, by James E. Gibbs, Jr., chief of the section. First staff member to be added to assist in the work is a consultant, Allan R. Lichtenberger, formerly director of research in the Nebraska State Department of Education.

For Title X the aids and guides for developing State plans have already been written. To help the States develop the plans they want, the State Schools Systems Section is scheduling a series of seminars throughout the country at which Office represen-

tatives can meet representatives of State departments of education. In addition, a conference of experts on the gathering and disseminating of educational data is being called in the Office to answer two questions: What are the criteria of a good State plan? What can the Office do to help the States develop a strong program? Conclusions reached at this conference will be made available to all State educational agencies.

HIGHER EDUCATION

Under the general direction of Lloyd E. Blanch, Assistant Commissioner for Higher Education, the Division of Higher Education has established the Financial Aid Branch. Directed by Homer D. Babbidge, Jr., formerly assistant to the Secretary of Health, Education, and Welfare. The Branch has 4 sections, one each for Titles II, Title IV, Part B of Title V, and Title VI.

LOAN SECTION

Title II is being administered in the Student Loan Section, under the direction of Peter Muirhead, who is on loan from his position as chief of the Bureau of Examinations and Tests, New York State Department of Education, where he was responsible for the administration of the New York State scholarship program and instrumental in the establishment of the New York State Higher Education Assistance Corporation. He is being assisted by J. Harold Goldthorpe, the Office of Education specialist for accreditation. This section also has a financial loan officer—Kendric N. Marshall, who directed the Government's student loan program during World War II and who comes to this new post from UNESCO, which he served as chief of the technical-assistance mission in Thailand.

Tentative plans in the Student Loan Section are these: All the basic information necessary for participation in the program, together with individual application forms, will be sent to college and university presidents by the last of November; on the basis of applications submitted to the Office, the Commissioner will have the money allotted to the institution for use in the second semester, i. e., by the latter

part of January or the first of February 1959.

Title IV will be administered by the Graduate Fellowships Section, which will be headed by J. P. Elder, on leave from his position as dean of the Graduate School of Arts and Sciences at Harvard University. Ward Stewart, specialist for business and public administration in the Division of Higher Education and formerly with the President's Committee for Education Beyond the High School is on detail to this section.

Part B of Title IV which provides for institutes to train counselors and other guidance specialists is assigned to the Counseling and Guidance Section. Ralph C. Bedell, Office specialist for Higher Education Programs, is on detail to this section. Dr. Bedell was recently secretary-general of the South Pacific Commission and was previously in charge of counselor education in the University of Nebraska.

LANGUAGE SECTION

Title VI—both parts—is the responsibility of the Section for language development. Here the work is being directed by Kenneth W. Mildenerberger, consultant on leave from the Modern Language Association, where he is associate secretary and director of the association's foreign language program.

STATISTICS AND RESEARCH

Title VII, which provides for research and experimentation in the educational uses of new communications media, has been assigned to the Division of Statistics and Research Services under the general direction of Assistant Commissioner Roy M. Hall. To carry out the several details involved, a new Communications Media Research Branch has been established within the division.

Development of the new Communications Media Research Program is under the direction of Kenneth D. Norberg, who is on temporary assignment to the Office of Education as a consultant. Dr. Norberg is on leave from his position at Sacramento State College where he is professor of education and coordinator of audio-visual services. Also assigned to the Communications Media Program as

consultant is C. Walter Stone, who is on leave from his position as professor of library science and specialist in audio-visual and adult education at the University of Illinois. Dr. Stone will be especially concerned with those responsibilities specified in Title VII which relate to dissemination. Anna L. Hyer, executive secretary of the Division of Audio-Visual Instruction of the National Education Association, has just completed a temporary assignment as consultant to the new program.

Within the branch at present are three sections: Audio-Visual, Radio and TV, and Research and Experimentation. The first two have been transferred to the new branch from the Division of State and Local School Systems and are headed respectively by Seerley Reid and Franklin Dunham. Staffing of the third section is in process at the time of this writing.

The procedural details for application under the Title are now being outlined; and, until they are completed, application for research grants or contracts may be made by letter or in a form similar to that used by the Cooperative Research Program. Applications should be addressed to the Communications Media Research Branch, Office of Education, Department of Health, Education, and Welfare, Washington 25, D. C.

VOCATIONAL EDUCATION

For Title VIII a new Branch—the Area Vocational Education Branch—has been set up in the Division of Vocational Education, under the direction of Assistant Commissioner James H. Pearson. Three consultants have come to Washington to assist Mr. Pearson: Drs. Arnold, Emerson, and Wilson, all identified under the foregoing discussion of Title VIII.

The regulations for Title VIII have been written and, by the time this issue is off the press, will be in the hands of State educational leaders. To help the States amend their vocational education plans to include the training of highly skilled technicians called for in the Title, the Office has sent State executive officers and directors a suggested guide for this purpose to help States as they develop their programs under this Title.

CHRONOLOGY OF CONSULTATION on the NATIONAL DEFENSE EDUCATION ACT

Excerpts From
Office of Education Calendar

SEPTEMBER 4-6

Preliminary conference with chief State school officers, to prepare for major conference of such officers 2 weeks later

E. ALLEN BATEMAN, superintendent of public instruction, Utah

OWEN B. KIERNAN, commissioner of education, Massachusetts

G. E. WATSON, superintendent of public instruction, Wisconsin

E. E. HOLT, superintendent of public instruction, Ohio

J. C. WRIGHT, superintendent of public instruction, Iowa

A. W. FORD, commissioner of education, Arkansas

OLIVER HODGE, superintendent of public instruction, Oklahoma

ROY E. SIMPSON, superintendent of public instruction, California

JAMES E. ALLEN, Jr., commissioner of education, New York

J. W. EDGAR, commissioner of education, Texas

THOMAS G. PULLEN, Jr., superintendent of schools, Maryland

EDGAR FULLER, executive secretary, Council of Chief State School Officers

FINIS E. ENGLEMAN, executive secretary, American Association of School Administrators

SEPTEMBER 12

Conference of experts to discuss program of loans to college students

RONALD M. BROWN, coordinator of scholarships, University of Colorado

JOHN DOZIER, executive secretary, scholarship committee, Duke University

FRANCIS P. KING, research officer, Teachers Insurance and Annuity Association of America

JOHN U. MONRO, director, Financial Aid Center, Harvard College

REXFORD G. MOON, Jr., director, College Scholarship Service

GEORGE RISTY, Office of the Dean of Students, University of Minnesota

IRVIN YOUNGBERG, executive secretary, Endowment Association, University of Kansas.

SEPTEMBER 15-16

Conference on counseling and guidance institutes

ELLA S. BARRETT, supervisor, guidance services, North Carolina Department of Public Instruction

DOUGLAS DILLENBECK, director of guidance, North Shore High School, Long Island

MITCHELL DREESE, dean in the office of the president, George Washington University

WILLIS DUGAN, professor of education, University of Minnesota

CLIFFORD P. FROELICH, professor of education, University of California

MARTIN JENKINS, president, Morgan State College

WALTER F. JOHNSON, professor of education, Michigan State University

PAUL POLMANTIER, professor of education, University of Missouri

EDWARD C. ROEBER, professor of education, University of Michigan

BRUCE SHEAR, chief, Bureau of Educational Guidance, New York State Department of Education

HOWARD SPAULDING, principal, A. B. Davis High School, Mount Vernon, N. Y.

ROBERT O. STRIPLING, head, Department of Personnel Services, College of Education

WILLIAM WILKINS, professor of education, New York University

E. G. WILLIAMSON, dean of students, University of Minnesota

SEPTEMBER 19

Conference of graduate deans, fellowships program

LEONARD BEACH, Vanderbilt University

JOHN O. RIEDL, Marquette University

WALTER E. LOEHWING, State University of Iowa

HERMAN E. SPIVEY, University of Kentucky

J. P. ELDER, Harvard University

CARL J. REES, University of Delaware

ROBERT M. LUMIANSKY, Tulane University of Louisiana

RALPH M. SAWYER, University of Michigan

ROBERT LESTER, Southern Fellowship Fund

LEWIS M. HAMMOND, University of Virginia

ROBERT W. MACVICAR, Oklahoma State University of Agriculture and Applied Science

HARRY ALPERT, University of Oregon

SEPTEMBER 19-21

Conference with Chief State school officers or their representatives

Alabama. A. R. MEADOWS, superintendent of education.

Arizona. M. L. BROOKS, superintendent of public instruction.

Arkansas. A. W. FORD, commissioner of education.

California. ROY E. SIMPSON, superintendent of public instruction.

Colorado. LEO P. BLACK, assistant commissioner for instructional services

Connecticut. WILLIAM J. SANDERS, commissioner of education.

Delaware. R. L. HERBST, assistant superintendent in charge of business administration

Florida. THOMAS D. BAILEY, superintendent of public instruction.

Georgia. CLAUDE L. PURCELL, staff member

Idaho. ALTON B. JONES, superintendent of public instruction

Illinois. ERICK H. JOHNSON, first assistant superintendent

Indiana. WILBUR YOUNG, superintendent of public instruction.

Iowa. PAUL JOHNSTON, assistant superintendent of public instruction.

Kansas. ADEL F. THROCKMORTON, superintendent of public instruction.

Kentucky. ROBERT R. MARTIN, superintendent of public instruction

TED C. GILBERT, head, Bureau of Administration and Finance

Louisiana. SHELBY M. JACKSON, superintendent of public education

Maine. KERMIT NICKERSON, deputy commissioner

Maryland. THOMAS G. PULLEN, Jr., superintendent of schools

Massachusetts. OWEN B. KIERNAN, commissioner of education

Michigan. LYNN M. BARTLETT, superintendent of public instruction

Minnesota. FARLEY BRIGHT, assistant commissioner in charge of instruction

Mississippi. J. M. TUBB, superintendent of public education

R. W. GRIFFITH, assistant superintendent

Missouri. HUBERT WHEELER, commissioner of education.

Montana. HARRIET MILLER, superintendent of public instruction

Nebraska. W. A. SCHINDLER, consultant in school administration

CECIL STANLEY, assistant commissioner for vocational education

Nevada. BYRON F. STETLER, superintendent of public instruction

New Hampshire. PAUL E. FARNUM, acting commissioner of education

New Jersey. FRANK B. STOVER, assistant commissioner

New Mexico. GEORGIA L. LUSK, superintendent of public instruction

CLARENCE HILL, staff member

New York. E. B. NYQUIST, deputy commissioner

North Carolina. CHARLES F. CARROLL, superintendent of public instruction

North Dakota. M. F. PETERSON, superintendent of public instruction

Ohio. E. E. HOLT, superintendent of public instruction

Oklahoma. OLIVER HODGE, superintendent of public instruction

Oregon. REX PUTMAN, superintendent of public instruction

Pennsylvania. CHARLES H. BOEHM, superintendent of public instruction

Rhode Island. MICHAEL F. WALSH, commissioner of education

South Carolina. JESSE T. ANDERSON, superintendent of education

J. C. HOLLER, director of instruction

P. H. BOMAR, chief finance officer

South Dakota. ERVIN PEREGRINE, consultant, school law, finance, and accounts

Tennessee. JOE MORGAN, commissioner of education

JAMES W. WHITLOCK, director of equalization

Texas. J. W. EDGAR, commissioner of education

Utah. E. ALLEN BATEMAN, superintendent of public instruction.

Vermont. A. JOHN HOLDEN, Jr., commissioner of education

Virginia. R. CLAUDE GRAHAM, assistant superintendent

Washington. LLOYD J. ANDREWS, superintendent of public instruction

LLEWELLYN GRIFFITH, supervisor, elementary education

West Virginia. R. VIRGIL ROHRBOUGH, superintendent of schools

REX M. SMITH, assistant superintendent, administration

Wisconsin. G. E. WATSON, superintendent of public instruction

Wyoming. VELMA LINFORD, superintendent of public instruction

Alaska. DON M. DAFOE, commissioner of education

District of Columbia. CARL F. HANSEN, superintendent of schools

Hawaii. WILLIAM H. COULTER, assistant superintendent

Puerto Rico. SAMUEL B. CULPEPER, technical assistant

Virgin Islands. ANDREW C. PRESTON, commissioner of education.

OCTOBER 3

Conference on language and area centers (Title VI, Part A)

PARTICIPANTS

RONALD S. ANDERSON, associate professor of education, University of Michigan
HARLAN CLEVELAND, dean, Maxwell

School of Citizenship and Public Affairs, Syracuse University

J. MILTON COWAN, director, Division of Foreign Languages, Cornell University

ARCHIBALD A. HILL, Department of English, University of Texas

ALBERT MARCKWARDT, English Department, University of Michigan

NORMAN A. McQUOWN, Department of Anthropology, University of Chicago

WILLIAM R. PARKER, Department of English, Indiana University

HOWARD E. SOLLENBERGER, dean, School of Languages, Foreign Service Institute, Department of State

CLEON SWAYZEE, Ford Foundation

OBSERVERS

ROBERT BYRNES, Department of History, Indiana University

CHARLES P. O'DONNELL, Foreign Service Institute, Department of State

OCTOBER 10

Conference on language institutes (Title VI, Part B)

THEODORE ANDERSSON, professor of Romance languages, University of Texas

EMMA BIRKMAIER, chairman, Department of Foreign Languages, University High School, University of Minnesota

CLAUDE BOURCIER, dean, The French School, Middlebury College

NELSON BROOKS, associate professor of French, Yale University

JOHN H. FISHER, superintendent, Baltimore City Schools

BRUCE GAARDER, Department of Modern Language, Louisiana State University

ARCHIBALD MacALLISTER, Department of Modern Languages, Princeton University

RUTH MULHAUSER, Department of French, Western Reserve University

HOWARD NOSTRAND, professor of romance languages, University of Washington

JOSEPH COLLINS ORR, assistant professor of modern languages, Purdue University

ALFRED SENN, Department of Modern Languages, University of Pennsylvania

ALFRED SENN, Department of Modern Languages, University of Pennsylvania

OCTOBER 20-21

Conference on educational uses of new media

ARTHUR S. ADAMS, American Council on Education

WILLIAM H. ALLEN, System Development Corporation

LYLE W. ASHBY, National Education Association

SAMUEL BECKER, National Association of Educational Broadcasters

HOWARD BOOZER, American Council on Education

EARLE BROCKMAN, American Council of Learned Societies

C. RAY CARPENTER, Pennsylvania State University

WILLIAM G. CARR, National Education Association

BLANCHE CRIPPEN, Council of Chief State School Officers

LEE J. CRONBACK, University of Illinois
C. W. de KIEWIET, University of Rochester

W. J. DUNN, National Catholic Educational Association

WILLIAM ENGBRETSON, associate secretary, American Association of Colleges for Teacher Education

ARTHUR W. FOSHAY, executive officer, Horace Mann-Lincoln Institute of School Experimentation, Teachers College, Columbia University

HAROLD GORES, Educational Facilities Laboratories

KENNETH HARWOOD, director, telecommunications, University of Southern California

CHARLES F. HOBAN, project director, Institute for Cooperative Research, University of Pennsylvania

ELTON HOCKING, chairman, Department of Modern Languages, Purdue University

VICTOR O. HORNBOSTEL, associate director, Research Division, National Education Association

RICHARD HULL, director of radio-television, Ohio State University

JOHN E. IVEY, executive vice-president, New York University

FRANCIS KEPPEL, dean, Graduate School of Education, Harvard University

KUMATA, HIDEYA, Communications Research Center, Michigan State University

JOHN R. MAYOR, director of education, American Association for the Advancement of Science

WESLEY C. MEIERHENRY, professor of education, University of Nebraska

JOHN MERCER, University of Southern Illinois

FORREST J. MOORE, regional consultant chairman, AV committee, Iowa State Department of Public Instruction

RALPH NAFZIGER, director of School of Journalism, University of Wisconsin

CHARLES B. PARK, Department of Special Studies, Central Michigan College

E. DEALTON PARTRIDGE, president, New Jersey State Teachers College

C. R. PHELPS, program assistant in special projects in education in the sciences, National Science Foundation

CHARLES F. SCHULLER, director of the Audio-Visual Center, Michigan State University

JAMES D. SECREST, executive vice-president, Electronic Industries Association

DOROTHY SMITH, secretary, television committee, American Council on Education

DALLAS W. SMYTHE, acting director, Institute of Communications Research, University of Wisconsin

RALPH STEETLE, executive director, School of Education, Pennsylvania State University

A. W. VANDERMEER, associate dean, School of Education, Pennsylvania State University

RANDALL WHALEY, Advisory Board on Education, National Academy of Sciences, National Research Council

DON WHITE, executive vice-president, National Audio-Visual Association

JOHN F. WHITE, president, Educational Television and Radio Center

WALTER A. WITTICH, professor of education, University of Wisconsin

OCTOBER 27

Secretary Flemming's Conference with members and consultants of Committee on Relationships of Higher Education to the Federal Government (American Council on Education):

MEMBERS

HURST R. ANDERSON, president, American University

CONRAD BERGENDOFF, president, Augustana College

JOHN T. CALDWELL, president, University of Arkansas

CARTER DAVIDSON, president, Union College

JOHN A. HANNAH, president, Michigan State University

HEROLD C. HUNT, Eliot professor of education, Graduate School of Education, Harvard University

KATHARINE E. MCBRIDE, Bryn Mawr College

DEANE W. MALOTT, president, Cornell University

JOHN F. MECK, treasurer-vice president, Dartmouth College

TOM L. POPEJOY, president, University of New Mexico

EDWARD B. ROONEY, president, Jesuit Educational Association

R. F. THOMASON, dean of admissions, University of Tennessee

ROBERT W. VAN HOUTEN, president, Newark College of Engineering

J. B. YOUNG, president, Jones County Junior College

ARTHUR S. ADAMS, *ex officio* president, American Council on Education

RAYMOND F. HOWES, senior consultant, American Council on Education

CHARLES G. DOBBINS, secretary, American Council on Education

CONSULTANTS

HELEN D. BRAGDON, director, American Association of University Women

LEONARD CARMICHAEL, secretary, Smithsonian Institute

W. LEIGHTON COLLINS, secretary, American Society for Engineering Education

THEODORE A. DISTLER, executive director, Association of American Colleges

WILLIAM P. FIDLER, general secretary, American Association of University Professors

ROBERT P. FISCHER, secretary, American Pharmaceutical Association

EDMUND J. GLEAZER, Jr., executive secretary, American Association of Junior Colleges

ALFRED T. HILL, executive secretary, Council for Advancement of Small Colleges

FREDERICK G. HOCHWALT, executive secretary, National Catholic Educational Association

WALTER JOHNSON, president, American Personnel and Guidance Association

WILLARD JOHNSON, education affairs vice president, United States National Student Association

W. NOEL JOHNSTON, American College Public Relations Association

EVRON M. KIRKPATRICK, executive director, American Political Science Association

JAMES McCASKILL, director, Division of Legislation and Federal Relations, NEA

CHARLES P. McCURDY, Jr., executive secretary, State Universities Association

M. D. MOBLEY, executive secretary, American Vocational Association

HUBERT C. NOBLE, general director, National Council of the Churches of Christ

WILLIAM R. PARKER, Modern Foreign Language Association

WILLIAM K. SELDEN, executive secretary, National Commission on Accrediting

G. KERRY SMITH, secretary, Association for Higher Education, NEA

HERMAN E. SPIVEY, dean, University of Kentucky

ERNEST T. STEWART, Jr., executive secretary, American Alumni Council

GEORGE W. STONE, Jr., secretary, Modern Language Association

RUSSELL I. THACKREY, executive secretary, American Association of Land-Grant Colleges

M. H. TRYTTEN, director, National Research Council

FRED H. TURNER, president, National Association of Student Personnel Administrators

J. FLETCHER WELLEMAYER, executive associate, American Council of Learned Societies

DAEL WOLFLE, executive officer, American Association for the Advancement of Science

OCTOBER 28

Conference with representative chief

State school officers to advise further on Title III and Title V

THOMAS D. DAILEY, superintendent of public instruction, Florida

E. ALLEN BATEMAN, superintendent of public instruction, Utah

CHARLES F. CARROLL, superintendent of public instruction, North Carolina

OWEN B. KIERNAN, commissioner of education, Massachusetts

A. JOHN HOLDEN, commissioner of education, Vermont

E. E. HOLT, superintendent of public instruction, Ohio

A. W. FORD, commissioner of education, Arkansas

OLIVER HODGE, superintendent of public instruction, Oklahoma

ROY E. SIMPSON, superintendent of public instruction, California

JAMES E. ALLEN, Jr., commissioner of education, New York

J. W. EDGAR, commissioner of education, Texas

THOMAS P. PULLEN, Jr., superintendent of schools, Maryland

G. E. WATSON, superintendent of public instruction, Wisconsin

J. C. WRIGHT, superintendent of public instruction, Iowa

The meeting was also attended by—

EDGAR FULLER, executive secretary, Council of Chief State School Officers

FINIS E. ENGLEMAN, executive secretary, American Association of School Administrators

OCTOBER 30

Conference with representatives of science and mathematics organizations

ALDEN H. EMERY, secretary, American Chemical Society.

JOHN MCLAIN, secretary, Council for Elementary Science International

GEORGE E. HOLBROOK, president, American Institute of Chemical Engineers

W. LEIGHTON COLLINS, secretary, American Society for Engineering Education

PAUL V. WEBSTER, secretary, National Association of Biology Teachers

E. P. CULLINAN, secretary, American Institute of Biological Sciences

FRANK VERBRUGGE, secretary, American Association of Physics Teachers

PAUL E. ELICKER, executive secretary, National Association of Secondary School Principals

THOMAS P. FRASER, president, National Association for Research in Science Teaching

ALAN WATERMAN, director, National Science Foundation

ROBERT CARLETON, executive secretary, National Science Teachers Association

WILLIAM G. POLLARD, executive director, Oak Ridge Institute of Nuclear Studies

HOWARD L. BEVIS, chairman, The President's Committee on Scientists and Engineers

REUBEN G. GUSTAVSON, president, Resources for the Future, Inc.

HOWARD A. MEYERHOFF, executive director, Scientific Manpower Commission

THOMAS H. SOUTHARD, president, Society for Industrial and Applied Mathematics

ELMER HUTCHISSON, director, American Institute of Physics

J. W. GREEN, executive secretary, American Mathematical Society

G. B. PRICE, president, Mathematical Association of America

M. H. AHRENDT, executive secretary, National Council of Teachers of Mathematics

FINIS E. ENGLEMAN, executive secretary, American Association of School Administrators

ROBERT W. EAVES, executive secretary, Department of Elementary School Principals, National Education Association

DAEL WOLFLE, secretary, American Association for the Advancement of Science

E. PAUL LANGE, secretary, Engineers Joint Council

S. L. TYLER, secretary, Engineers Council for Professional Development

H. M. TRYTTEN, director, Office of Scientific Personnel, National Academy of Sciences

NOVEMBER 5

Secretary Flemming met with organizations concerned with higher education. These organizations were invited to send representatives:

American Alumni Council

American Anthropological Association

American Association for the Advancement of Science

American Association of College Business Officers

American Association of Colleges for Teacher Education

American Association of Colleges of Pharmacy

American Association of Collegiate Registrars and Admissions Officers

American Association of Collegiate Schools of Business

American Association of Dental Schools

American Association of Junior Colleges

American Association of Land-Grant Colleges and State Universities

American Association of University Professors

American Association of University Women

American Chemical Society

American College Public Relations

American Council of Learned Societies

American Council on Education

American Historical Association

American Institute of Biological Sciences

American Library Association

American Mathematical Society

American Medical Association

American Nurses Association, Inc.

American Physical Society

American Political Science Association

American Psychological Association

American Society for Engineering Education

American Sociological Society

American Textbook Publishers Institute

Association for Education in Journalism

Association for Higher Education

Association of American Colleges

Association of American Law Schools

Association of American Medical Colleges

Association of American Universities

Association of College and Research Libraries

Association of Collegiate Schools of Architecture

Association of Governing Boards of State Universities and Allied Institutions

Association of Graduate Schools in the Association of American Universities

Association of Schools and Colleges of Optometry

Association of Schools of Public Health

Broadcasting Foundation of America Council for the Advancement of Small Colleges

Council for the Advancement of Small Colleges

Council for Financial Aid to Education, Inc. Council on Library Resources, Inc.

Council on Social Work Education, Inc.

Educational Television and Radio Center

English Speaking Union

Federation of American Societies of Experimental Biology

Institute for Education by Radio-Television

Institute of International Education, Inc.

Joint Council on Educational Television

Mathematical Association of America

Modern Language Association of America

National Academy of Sciences

National Research Council

National Association of Broadcasters

National Association of Educational Broadcasters

National Association of Foreign Student Advisers
 National Association of State Directors of Teacher Education and Certification
 National Association of State Universities
 National Association of Student Personnel Administrators
 National Association of Women Deans and Counselors
 National Commission Teacher Education and Professional Standards
 National Council for Geographic Education
 National Council of Teachers of English
 National League for Nursing
 National Social Welfare Assembly, Inc.
 New England Board of Higher Education
 Social Science Research Council
 Society of American Foresters
 Southern Regional Education Board
 State Universities Association
 United Chapter of Phi Beta Kappa
 Western Interstate Commission for Higher Education

DECEMBER 1

Secretary Flemming will meet with organizations concerned with elementary and secondary education. These organizations are planning to send representation:

Adult Education Association of the U. S. A.
 American Association for Gifted Children, Inc.
 American Association on Mental Deficiency

American Association of School Administrators
 American Educational Research Association
 American Farm Bureau Federation
 American Federation of Labor and Congress of Industrial Organizations
 American Federation of Teachers
 American Foundation for the Blind
 American Hearing Society
 American Home Economics Association
 American Jewish Committee
 American Legion
 American National Red Cross
 American Parents Committee, Inc.
 American Personnel and Guidance Association
 American Speech and Hearing Association
 American Veterans Committee
 American Vocational Association
 Association for Childhood Education International
 Association of Junior Leagues of America, Inc.
 Association of School Business Officials of the United States and Canada
 Association for Supervision and Curriculum Development
 Boy Scouts of America
 Chamber of Commerce of the United States
 Child Study Association of America, Inc.
 Conference of Executives of American Schools for the Deaf
 Conservation Education Association
 Convention of American Instructors of the Deaf

Cooperative League of the U. S. A.
 Cooperative Study of Secondary School Standards
 Council for Basic Education
 Council for Exceptional Children
 Council of Administrators of Special Education in Local School Systems
 Council of Chief State School Officers
 Department of Audio-Visual Instruction, Michigan State University
 Department of Classroom Teachers, National Education Association
 Educational Policies Commission, National Education Association
 Education Writers Association
 Emergency Committee for the National Defense Education Bill
 General Federation of Women's Clubs
 Girl Scouts of the United States of America
 Music Educators National Conference
 National Association for Retarded Children, Inc.
 National Association of Colored Women
 National Association of Social Workers
 National Association of State Directors of Special Education
 National Catholic Educational Association
 National Child Labor Committee
 National Citizens Council for Better Schools
 National Congress of Colored Parents and Teachers
 National Congress of Parents and Teachers
 National Council of Churches of Christ in the U. S. A.
 National Council of Independent Schools
 National Council of Jewish Women
 National Council of Negro Women
 National Council of State Consultants in Elementary Education
 National Council of Young Men's Christian Associations
 National Department of Elementary School Principals
 National Farmers Union
 National Education Association
 National Health Council
 National Jewish Welfare Board
 National Safety Council
 National School Boards Association
 National School Public Relations Association
 National Science Teachers
 National Society for the Prevention of Blindness
 National Urban League
 United Auto Workers
 United Church Women
 Young Women's Christian Association of the U. S. A.
 American Association of University Women

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American Education Week, 1958

★ ★ ★

BY THE PRESIDENT OF THE UNITED STATES OF AMERICA A PROCLAMATION

WHEREAS our system of free and universal public education is a foundation stone of American democracy; and

WHEREAS we, as a people, must today bear responsibilities and solve problems more difficult and more demanding than have ever before confronted us; and

WHEREAS we face these problems head on, confident that the most formidable obstacles to national progress and world peace can be surmounted by an educated citizenry, trained up in freedom and self-discipline from their earliest years:

NOW, THEREFORE, I, DWIGHT D. EISENHOWER, President of the United States of America, do hereby designate the period from November 9 through November 15, 1958, as American Education Week; and I urge citizens in their schools and throughout their communities to participate actively in the observance of that week.

Let us show the world and remind our children of our faith in the power of education by giving our intelligent and wholehearted support to every constructive measure designed to strengthen our schools and colleges across the land. And let us furthermore express our constant gratitude to our Nation's teachers, those dedicated men and women whose objective it is to advance the benefits of education among our citizens, in the promise of a fuller life for each and a better life for all.

IN WITNESS WHEREOF, I have hereunto set my hand and caused the Seal of the United States of America to be affixed.

DONE at the City of Washington this twenty-ninth day of October in the year of our Lord nineteen hundred and fifty-eight, and of the Independence of the United States of America the one hundred and eighty-third.



Dwight D. Eisenhower

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HOMEMAKING EDUCATION PROGRAMS FOR ADULTS, prepared by Home Economics Education Branch. 1958. 62 pp. 25 cents. (Voc. Div. Bul. No. 268).

JUNIOR YEAR SCIENCE AND MATHEMATICS STUDENTS BY MAJOR FIELDS OF STUDY, FALL 1957, by *M. Clemens Johnson* and *Hazel C. Poole*. 1958. 56 pp. 45 cents. (Cir. No. 520).

SCHOOL PLANT COURSES OFFERED BY COLLEGES AND UNIVERSITIES IN THE UNITED STATES, 1956-59, by *Ray L. Hamon*. 1958. 32 pp. 25 cents. (Cir. No. 534).

STATISTICS OF HIGHER EDUCATION: 1955-56, FACULTY, STUDENTS, AND DEGREES, by *Henry G. Badger* and *M. Clemens Johnson*. 1958. 152 pp. 60 cents. Biennial Survey of Education in the United States—1954-56: Ch. 4, Sec. 1.

SUMMARIES OF STUDIES IN AGRICULTURAL EDUCATION, Supplement No. 11. 1958. 86 pp. 35 cents. (Voc. Div. Bul. No. 272).

TRAINING OPPORTUNITIES IN OUTSIDE SELLING, prepared

by *Ben Franklin Bills*. 1958. 13 pp. 15 cents. (Voc. Div. Bul. No. 270).

TRAINING PROGRAMS IN OUTSIDE SELLING, prepared by Distributive Education Branch. 1958. 15 pp. 15 cents. (Voc. Div. Bul. No. 269).

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CURRICULUM GUIDES DEALING WITH EARLY ELEMENTARY EDUCATION—KINDERGARTEN, prepared by *Lillian L. Gore*. July 1958. 17 pp. (Sel. Ref. No. 11).

HOME ECONOMICS IN DEGREE-GRANTING INSTITUTIONS—1957-58, prepared by *Virginia F. Thomas*. 38 pp. July 1958. (Misc. 2557, Rev. 1958).

THE NATIONAL DEFENSE GRADUATE FELLOWSHIP PROGRAM AUTHORIZED BY THE NATIONAL DEFENSE EDUCATION ACT OF 1958. 1958. 4-page leaflet.

THE NATIONAL DEFENSE STUDENT LOAN PROGRAM AUTHORIZED BY THE NATIONAL DEFENSE EDUCATION ACT OF 1958. 1958. 6-page leaflet.

STATISTICS OF PUBLIC LIBRARY SYSTEMS IN CITIES WITH POPULATIONS OF 35,000 TO 49,000: FISCAL YEAR 1957, by *Rose Vainstein*, *Mary M. Wilhoite*, and *Doris C. Holladay*. July 1958. 4 pp. (Cir. No. 536).

